

Bodyweight/Martial Arts Exercises:



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First off, the reason I wrote this is simple. I needed a way to work out that was time-efficient, cheap, took up very little space, and needed little or no equipment and that I would not get bored of. After a lot of reading and researching, I found that bodyweight calisthenics, when done right, can make you as strong or stronger than a weightlifter, and the strength is all functional. It costs next to nothing but your own time and effort, and a few small pieces of equipment:

Push up handles
 Chinning bar with "V" handles
 Some pieces of broomhandle or dowel
 Some short pieces of rope or old towels
 A spring/rubber band expander
 A Jump rope
 Running or workout shoes
 Abdominal Wheel
 Some chairs
 A wall

All these things will be mentioned in the workouts to follow, and can be gotten cheaply. The most expensive thing is probably the shoes (considering shoe prices nowadays). All the rest can be bought and/or made for very little, probably less than 75 or 100 bucks. You can adapt and improvise as well. You can mix up, change, or vary the exercises done to make them more interesting and harder to do, thus continuing the desired training effect – strength and power.

My sources in compiling this personal manual included the following: Wrestling and boxing exercises, my martial arts instructors in *Wing Chun* as well as from my younger days in *Muay Thai*, friends who've taken gymnastics and other arts, Internet resources on *Wing Chun* Kung Fu drills and exercises, Navy Seal workout manuals, Israeli Defense force books, books on Pilates, Yoga, total body conditioning, stretching, and isometric/isotonic exercises.

The overall principles in my workout philosophy are based heavily in the following:

1. Keep it simple.
2. Hit all the body parts.
3. Do functional strength exercises first and foremost, try to keep any purely cosmetic ones to the end (if you need to do them at all, you may not need to)
4. Keep it high-rep, and high intensity, with little rest. In general, the calisthenic exercises should be done at a quick pace, back to back, with only a minimum (5-10 seconds) rest between sets or types of exercises. The cardio exercises should be done as shorter more intense exercises, rather than an hour or two of leisurely activity. This produces more growth hormone and also will ensure enough stress to create a training effect.
5. One should progress from lower to upper body to abs/back to neck (and forearms if desired), in that order.
6. Keep a sense of body awareness. Learn to make your body work as a unit, with all the muscles working together to develop maximum power, strength, agility, and speed. Relax and don't use any antagonistic tension. This will enable more power and speed to be developed, as you won't be fighting yourself. (Except for isometric or static exercises, where the idea is to generate maximum tension.)

If you're interested in cosmetic training as well:

To get more defined without gaining size, do cardio first then strength.

To gain or maintain muscle while staying lean, do strength then cardio.

Calisthenics are good for strength, even in high reps. Many of the great Hindu wrestlers, who trained on high-rep calisthenics were monstrously huge. How could this be?

The key to gaining muscular size is not so much in doing low reps or high reps, it's in how much food and drink eat. If you do high reps and eat excessively, you'll get huge. If you do high reps and eat moderately and eliminate unhealthy junk food, you'll lose weight, as long as there is a calorie deficit.

High reps AND low reps will make you stronger. The key is in consistent training. Constantly mix up your training when you work out. Do high-rep calisthenics. Then do some bodyweight calisthenics that are so hard you can barely do one-rep. Things like handstand pushups, one-arm pushups, one-legged squats, etc. Mixing it up adds a training effect and prevents adaptation to the program.

Train smarter, and work harder, and you will get what you want from your body.

Just remember, conditioning will make you a better martial artist or athlete. Many of the exercises here will help any sport, but most were designed for martial arts. Try and see if they can help you.

However, always let the actual practice of your art or sport take precedence over excessive conditioning time. If you are trying to be a fighter, being super fit but not having practiced the techniques of your art will make you lose to someone with less conditioning but who has a lot more skill but knows how to use it.

7 ways to check if your workout is working out

Here are seven reliable and quick signals that tell you how well you're doing when you work out. This will help you diagnose sooner -- rather than later -- whether your program is actually working. If these signs are there, you're doing something right. Otherwise, change something.

YOU FEEL THE EXERCISES WHERE YOU'RE SUPPOSED TO

You may feel a little discomfort in your joints on the first set of an exercise. But the discomfort should disappear on subsequent sets. After that, you should notice it right in the belly of the muscle. Here are some of the exercises you're more likely to feel in the wrong places...

EXERCISE	FEEL IT IN YOUR...	BUT NOT IN YOUR...
Abdominal crunch	Midsection	Lower back, neck
Wide Grip Pull Ups	Upper back	Shoulder joints, arms
Leg curl	Hamstrings	Lower back, gluteals
Leg extension	Quadriceps	Knees
Squat	Thighs, gluteals	Knees, lower back
Pushups	Upper arms	Elbows

YOU'RE PUMPED UP

After some work, the muscles you're targeting should feel full and hard. This is the "pump". You see the results of your work, and you look better already. (Okay, get away from the mirror already.) The pump also serves an important physiological purpose. The movements that trap blood in your muscles also generate lactic acid. Lactic acid helps produce growth hormone. Growth hormone is thought to help your muscles grow bigger and your fat cells shrink, since it mobilizes fat for energy. This means more strength and good muscle mass. The more blood that goes to your muscles means more nutrients and energy, which means more growth.

YOU DON'T FEEL HUNGRY

It is bad if you are hungry before your workouts over. That's a sign your blood-glucose levels are dropping and muscle glycogen is being used at a really rapid rate, and you're about to use muscle protein for energy. Catabolizing that is BAD. When you use muscle protein for energy, you're making your muscles smaller instead of bigger. That leads to overtraining and is counterproductive, and can also compromise your immunity and your overall health.

YOUR BODY FEELS WORKED, BUT NOT DEAD

You'll know when you've hit your muscle just right. Muscle spasms and small tremors may occur in a fatigued muscle, most obviously in the small muscle groups. If your arm shakes a little when you comb your hair after an upper-body workout, that's a sign you really challenged the muscles without overdoing it. (If you can't lift the arm, go to a hospital.)

YOU FEEL REALLY GOOD

For the first couple of hours after a great workout, nothing should bother you. You should experience an elevation in mood and a decrease in anxiety. This is attributed to hormones called endorphins. You should also feel more mental energy after a workout.

YOU'RE NEARLY AS STRONG FROM ONE SET TO THE NEXT

This tells you three good things: You're using the right resistance, you're resting enough between sets, and your body is properly fueled. But if your strength drops rapidly, a bunch of stuff is going wrong: You didn't warm up

enough, you're using too much resistance or the exercise is way too tough for you at that point, or you rushed through your exercises too fast.

YOU LOOK FORWARD TO RETURNING TO THE GYM

If you see improvement in this workout, that creates a mindset "Next time will be even better!" Record what you did and the number of times you did it. You may even feel motivated enough to write down what you expect to do in your next one. You'll be more excited about training, which lays the groundwork for another good, productive workout.

HOW TO TELL WHEN YOUR WORKOUT *ISN'T* WORKING

You can't wait to leave the gym. The opposite of an endorphin release is boredom. You feel exercises in places you shouldn't feel them. Joint pain signals an impending injury, and only the **dumbest** keep going. You feel lousy afterward. If you go into the locker room with nausea, muscle cramps, cold sweats, or a rapid heartbeat, you know you've pushed yourself too far – or you're sick and shouldn't have been working out in the first place. You're weaker than you were last workout. You should make progress in every workout. If you start to go backward, your body is telling you it's time to try something new.

So with that all being said, keep it in mind and let's get to the exercises.

Balance exercises:

Do these first, before you get tired and wear yourself out. Or do them separately. Some may be ridiculously easy, so just start with the ones that become difficult to do.

1. Stand close or hang onto a counter top. Have a second person stand by for additional security, if you really need it.
2. Try to balance while standing on one foot.
3. Repeat step #1, but close your eyes. Can you keep your balance with your eyes closed?
4. Stand with your feet close together and balance with your eyes closed.
5. Stand in a heel-toe position (ex: R foot ahead of L foot, L toes should be touching R heel).
6. Now try Step #5 with your eyes closed.
7. Practice walking heel-toe across the room. (Pretend you are walking a "tightrope").
8. Repeat Step #7 with your eyes closed. Try it again but walk backwards.
9. Practice side stepping (walk laterally) across the room. Try again with shut eyes.
10. Walk carioca style (walk laterally, take one step in front of the body, then take another step behind the body). Some call this exercise "crossovers". (You can run like that too. See the cardio section later.)
11. Repeat Step #2, Step #4 and Step #5, but stand on an eight inch piece of foam.
12. Balance on one leg. Tap your toe of the free leg on each hour position of a huge imaginary clock on the floor.
13. Practice stepping over a big thick telephone book. Go forwards, backwards, and sideways. Athletic individuals can try hopping over the book.
14. Raise a long 2x4 piece of wood up on some blocks and practice tandem heel-toe walk, side steps, and crossovers.
15. For combative purposes, start doing kicking and punching while balancing on one foot, or doing the forms. Also, do it with the eyes closed.
16. Start hopping forward with one foot raised, then throw punches continuously. Do it backwards too. Try hopping and kicking at the same time. If that is too hard, try having someone hold your foot while they step, you hop to keep up. You throw punches continuously.
- 17.

Tips:

1. Mini trampolines work well for the one-legged balance techniques. Added some small vertical or lateral hops on the mini trampoline.
2. Make a tight obstacle course with soup cans and weave in and out and around the cans. Try to weave and bend down to pick up the cans. Also, this can be used for footwork.

Leg/Lung:

Squatting Exercises

Hindu Squat ("bathaiks ")

1. Begin with your feet shoulder-width apart. Point your toes straight ahead.
2. Keeping your back straight, lower your buttocks until your thighs are parallel to the floor.
3. As you lower your buttocks your hands are BEHIND your legs, and they follow you toward the ground.
4. As you hit the parallel-to-the-ground position, you simultaneously **raise your heels from the floor**. This is crucial for taking the stress off your back and putting it on the leg muscles where it belongs.

5. Push off your toes, raising your body to a standing position. DON'T BOUNCE.
6. As you raise your body, your hands come IN FRONT of your body. They continue to rise until they are level with your chest.
7. Once you have reached the up-position, you pull your arms in toward your chest as if you are rowing a boat. Make tight fists with your hands and pull. Your elbows will be close to your body as you pull.
8. Inhale as you pull your arms in, exhale as you lower yourself.
9. Repeat without stopping for as many reps as possible.

In the beginning, depending on your condition, you will be able to do 25-50. When you can do 100 without stopping, your conditioning level is improving. When you can do 500-straight Hindu squats, you're making great progress. **Note:** I have heard from other sources that many of the great Hindu wrestlers developed knee problems later in life. Use caution with overdoing these. In a recent interview with Ken Shamrock (maybe Frank, not sure) he said 250 was the most you should do to get the conditioning benefits, but without the knee problems.

One-Legged Squats – Stand with one foot slightly off the floor. Squat down on one leg, and come back up. Can try with chairs or a wall for support at first, should work up to doing them free standing. Being a WC practitioner, I like to turn the extended leg so it resembles the kick.) Hands should be out in a guard position. If you are using a wall or chair, the free hand should be out.

Burpees/Squat-Thrusts – A total body workout in a minimum of space. Start in a standing position with feet close together. Now, squat down and put the palms of your hands outside and slightly forward of your feet. With your weight supported by your hands, thrust your feet backward so that you are in the traditional "up position" for a standard pushup. Do a pushup and return to the up position. Immediately after the pushup, pull your feet up to your hands in one movement, and stand back up to the original position. This is one "rep".

1. Start standing, legs close together to shoulder width apart. (position #1)
2. Bend your knees and squat down so that your hands are on the floor. (position #2) I find my knees are on touching my chest at this point, but your flexibility may have you in a slightly different position.
3. Rest your weight on your hands, kick both legs back so that you are in a push up position.
4. Resting your weight on your hands, pull your legs forward to return to position #2.
5. Stand up, returning to position #1. (or as jump up in the air and land in position #1)

This is a good overall body conditioner. This exercise is great in that it challenges the lungs, coordination, balance, and muscular endurance. Breathing is the key, and you have to find your personal rhythm for this in order to progress with this movement. Try to do anywhere from 20 to 30 in the beginning.

"Twenty-up" workout with these:

Do a one rep set, then a two rep set, then three, then four, until you get to a twenty rep set for a total of 210 burpees. Sometimes it's easier to start with twenty and work your way down. Just keep the rests between sets to a minimum. This is tough.

Another interesting little twist you can throw in is when you go down into the pushup, come up with an explosive push and do a clapping pushup. You can make it harder this way too: if you can do it with your feet off the floor too, so your body is completely off the floor, parallel to it, then catch yourself coming down (with bent elbows of course, so they serve as shock absorbers. If you tried to land with locked elbows in the top position of the pushup you would seriously hurt your wrists and elbows) into the bottom of the pushup again, this time do a normal pushup and continue as normal. Now you have made it a seven count squat thrust.

Here's a burpee workout I got off the Underground Forum at Mixedmartialarts.com:

You are doing 6-count burpees and time yourself in 1 minute intervals. You do 10 six-count burpees and you rest until the 60 secs. are up. It should take you 35-40 secs. to rip out 10. At the start of the next minute you go into action and do another 10 burpees and rest for the remainder of the minute. So you do ten rounds of 10 burpees with rests of anywhere from 20 secs. to zero seconds as you take longer to do the 10 reps further into the workout. Sounds like silly but give it a try and see. If it gets to where it does not give you trouble, then you have a quicky workout that you can do in addition to whatever else you do if you want to crank up the amount of cardio you do per day. You can also do it in 20-10's where you do activity at an all out pace for 20 secs. then rest for 10 secs. and repeat for ten cycles which would take you only 5 mins. Do multiple 5 min. rounds of that with 60 secs. rest in between! Good luck!!

Wall Sit – Get next to the wall, put your back on it. Slide down it until you reach a "sitting position" with your thighs parallel to the floor. Cross your arms over your chest and just sit there. Can be made harder by attaching rubber cords to your shoulders and ankles and fighting resistance, having someone sit on your knees, or putting books or other heavy objects on your lap.

Lunges - Stand with feet close together. Now step forward with one leg into a deep lunge, and keep the other leg straight. Push yourself back up and repeat with the other leg. Be careful not to let your knee go farther than your toes on the leg that lunges forward. Don't overdo the lunges in the beginning. Keep it to 10 each leg, and try to

work yourself up to 20 to 30. Can do with a weight plate held at chest. Dumbbells are also good to add resistance when you start getting used to these.

"Bootstrappers" - Get yourself in a standard pushup position. Now walk your hands back until they are about 2 and a half feet in front of your toes (adjust accordingly for your body size). You are now in a "jack knife" position with legs straight. Now bend your knees until your butt touches your heels, arms are still straight. Straighten your legs and repeat continuously. This is another good warm-up exercise for the legs, but also really helps strengthen the knees.

Drop your body down so that you're in the bottom position of the shootfighter (or Hindu) squat, up on the balls of your feet. Now lean your body forward and put your hands down where they naturally fall. With bootstrappers you are just raising your butt and knees up and then back down (kind of like stretching) into the starting position, meaning your feet and hands never leave position but everything else raises and lowers. With bootstrappers, your feet stay in one place.

One Legged "Bootstrapper" - Once you get your hands into position and are ready to start, place your right foot on your left Achilles tendon. Now you're doing a one legged bootstrapper. Do both sides.

Mountain Climbers - With mountain climbers, the hands move. If you were to stand up straight, put your arms out straight at shoulder height and then try to touch your knees to your chest, that's what a mountain climber looks like. Except that you are in the pushup position while your legs pump towards your chest.

Single-leg Balance Squat - Stand on 6" block or step, with one foot off the edge. Bend supporting leg's knee so the dangling leg touches the floor. Hold for 3-5 seconds.

Low Shifts - Get into a low position, almost like a high split. Now, start shifting your weight from one leg to the other. Keep your back straight. Try it with your arms in a guard position, then throw punches while you do it. (I find that keeping your heels off the floor makes it a little easier on the back. Try it with feet parallel or pointed out. Also, try turning your body towards the straightening leg when you twist.)

Walking/Crawling Exercises:

"Duck Walk" - get down into a squatting position. Start walking forward. Begin with the hands behind the head, back as straight as possible. Eventually, work up to completely straight back. Then, instead of hands behind head, start walking with hands out in a guard position. Then learn to do it while continually throwing punches. As it gets easier, try walking from side to side or backwards too.

"Farmer's Walk" - Walk on tiptoes, leg straight at knee. Can be done with arms up over head, out to side, or in guard position. Can also carry weights in the hands. Also can be done walking on heels, with toes elevated.

"Bear crawls" - Find yourself some space. Now get down on all fours and walk around like a bear. Sounds easy, right? Do this for three to five minutes and see what you get out of it. Works the entire body. Good for a warm-up, too. Yes, you'll look like that kid from 'The Jungle Book', but this movement should not be overlooked. Can also be done on about 6-inch long blocks. Get on all fours similar to a bear crawl position. With hands on the blocks push the blocks and do laps.

"Crab walk" - You're on all fours, but this time you're facing upwards. Very awkward, and much more of a challenge to your coordination than the bear crawls. Builds strength and endurance. (I remember doing this as a kid.)

"Crocodile walk" - Get face down. The object is to crawl along the floor with your torso as close to the floor as possible without touching. It's hard to describe the leg/foot and arm/hand positioning. Just plop down and figure out what works for you. Helps body control, and develops strength. With all of the crawling movements, just go until you feel fatigued. Track your progress by what distance you can cover. How many laps can you crawl around the mat or school? Set ever-increasing goals.

Exploding Star Jumps - Don't do these until your muscles and joints are warmed up pretty good. I recommend wearing athletic shoes and exercising on a somewhat soft surface (carpet or a mat). Slowly lower yourself into a full squatting position. Now explode upward and forward as high, hard and fast as you can. As your body reaches it's apex...extend your arms and legs into a "star" shape. Cushion your landing by flexing your knees, don't land with stiff legs. Jumping and extending not only develops power, but also challenges your coordination and body control. Go for quality, not quantity on these. Five to ten is plenty.

"Stomping grapes" - Very important exercise for developing kicks. It is supposed to make you able to kick head height in street clothes, anytime of day or night, completely cold, no warm-up required. There are two traditional variations to this movement, and you need both to get the entire benefit.

First movement: stand with your legs together, and bring your knee as high as possible. Make sure you stand completely straight...the goal is to raise your knee and touch your chest. Alternate legs, repeatedly. Raise your leg with CONTROL, don't jerk it up and try your best to touch your chest at the top. Keep your torso straight up, don't bend it down to hit your knee. If possible, try to reach the shoulder.

Second movement: clasp your hands above your head as if you were being frisked by a cop. Now, raise your knee straight up to the side with the goal of touching your knee to the underside of the arm. Keep your body completely erect, and don't jerk the leg. If you are facing North, your knees and toes should be pointing due East/West when you do this movement. Try to attain/maintain this alignment and really explore the range of motion on this second version. In the beginning, 20 to 25 reps each leg is good for both variations. Try to work up to a minimum of 50 each leg.

(My comment: for WC, I think a third, intermediate version may help too. Rather than doing it out to the front or side, do it at a 45-degree angle from the centerline. This position comes close to the chamber for the kick.)

Jumping/Plyometric Exercises:

Plyometric exercises can greatly increase the explosive power of your techniques. First of all we need to understand the components of power. High school physics tells us that Force = Mass X Acceleration. This means that a 100 pound person who is twice as fast as a 200 pound person should be able to strike with the same amount of force. If you want to hit harder with your existing mass, you must therefore increase your acceleration. Acceleration is the ability to go from a state of rest to maximum speed in as little time as possible. This process consists of two factors. The first is 'starting strength'. This is the ability to recruit a maximum number of muscle fibers in a muscle. When stimulated, each muscle fiber will always contract as violently as possible. It can not vary the intensity of its' contraction in relation to the load against which it is reacting. To allow for different possible load conditions (pushing a glass of water across a table as opposed to punching an attacker), the central nervous system stimulates only enough fibers necessary to perform the task at hand. In both examples, the arm's pushing muscles are involved. However, it takes fewer fibers to push the glass of water than it does to punch strongly. There is a limit to how many fibers you can call upon or recruit at any given instant. This limit is the ceiling of your strength. Strength training can improve the nervous system's ability to recruit fibers (note, this is not a change to the muscle fiber itself). Improved recruitment can result in smaller individuals being as strong as some larger individuals due to their nervous system being more efficient, and recruiting more muscle.

The second factor is 'explosive strength'. This is the ability to keep the muscle fibers firing over time once they have been activated. Not only is it necessary to activate the muscle fibers thereby setting into action the punch or kick, the blow must be sustained throughout the range of motion to sustain its' effectiveness. This aspect depends on the amount of tension the muscle fibers can achieve when stimulated by the nervous system. This muscle contraction is caused by contractile enzymes that activate proteins within the muscle cell called Myofibrils. The more of these proteins that are packed into the cells, the bigger and stronger the muscle becomes. Therefore, to be able to punch or kick powerfully, you must recruit the maximum number of muscle fibers involved in the blow, in the quickest time possible, using the muscle's cellular makeup to create the explosive power necessary for maximum effectiveness.

Another important factor for powerful kicks and punches is the elasticity of the muscles and the connective tissue. There is a tendency for all matter to return to its' original shape after being stretched. This tendency in muscles is called *viscoelasticity*, and can assist greatly in exerting force, but only if your stretch and return maneuver is performed sharply with speed. The reason is that once in a stretched position for any length of time, the elasticity wanes. This is why a recoiled punch can be more powerful than one that is just as strongly thrust out without a quick return. So if we look at all the components of powerful blows, we see that they are dependent on speed (acceleration), mass (size of the muscles), and elasticity (springiness). To develop these attributes we use what are called plyometric exercises.

The Soviets are credited with the development of plyometrics, although this type of exercise has been around the western sports scene for a long time. It was the Soviets however, that learned that these exercises were effective in terms of specific physiological aspects. They improve strength, explosive power, and restore viscoelasticity in the involved muscle groups. How do plyometrics work? Think of your muscles as springs. Every time you punch or kick, your muscles coil, then spring back to their normal length. One of the reasons that they spring back is that you voluntarily contract them, but part of the force comes from what scientist call the flex reflex. Further force is supplied from the natural elasticity of your muscle tissue and connective tissue. The stretch reflex and the elastic components of the force are not volitional, that is, they occur involuntarily. You can, through plyometrics, use these involuntary sources of force to generate even greater volitional strength and speed. This springy type of force is important in martial arts and WC in particular (especially to develop the springy forward energy reaction for combat and *chi sao* "energy hands").

Just remember that plyometrics are stressful. They require using your body ballistically or in explosive movements. For this reason, you should thoroughly warm up before executing any of these exercises. Plyometrics

are controversial because they can easily be misused. Some of the exercises advocated by those who are not fully aware of the dangers of misusing plyometrics can cause damage to various joints and connective tissues. We will first cover those exercises that are the most beneficial to martial artists and then we will mention some of the ones that should be avoided, and why.

Leg Explosiveness

To build leg explosiveness you should train appropriately for the specifics of your sport(s) and the level you participate at. For example, if you are sprinter, you can do double leg and single leg hops. In these exercises you jump forward as quickly as possible, striving to keep the amount of time your feet are in contact with the ground as short as possible. If you are involved in sports such as volleyball and basketball, you do more stationary power jumping, using a double leg take-off. In this exercise you jump up as high as possible, reaching upward with your arms. If you are involved in a sport such as long jumping, then you can do bounding, which, in essence, is multiple hopping (like a kangaroo) for maximum distance. Use a double leg and single leg take-off. Repeat 5-7 times.

As you execute some of the specialized strength work, you can also begin jumping, but at a moderate rate and without great intensity. Some of the more effective exercises are as follows:

- Double leg hops in place (150 - 160 jumps/min)
- Double leg jumps over 6 - 8 medicine balls placed at suitable distances for jumping over. If you want more height, keep the balls closer; if you want more forward movement, place the balls further apart.
- Jumps for height with an approach run, including kicking a hanging object
- Single leg jumps (hops) with forward movement
- Single leg hops over 6 - 8 medicine balls (low obstacles)
- Skips
- Leaps (from one leg to the other up to 10)
- Ankle jumps. The key is to keep your legs straight and use ONLY ankles.

Change in Direction Jumps

- After developing confidence in your ability to do these jump exercises, you can then begin doing some jumps with changing directions. Some of the exercises that you can do are as follows:
- Double leg hops forward. Prior to landing, turn 180 degrees so that when you land you face the position you took off from. Leap up again and make another 180 degree turn to again face forward. You can change body position with each jump or after several.
- Side jumps. Jump to the left and then to the right, staying in the same basic position.
- Side jumps over a medicine ball or other object.
- Side jumps over a bench.
- Do several side jumps over a bench, followed by several forward jumps over benches.
- Zigzag jumps. Jump forward and to the left, then forward and to the right. Go for approximately 10 jumps. Repeat for 2 - 3 series.
- Box jumps. Jump forward, to the right, to the rear and then to the left and repeat in the opposite direction. (Jump to each corner of a square traced on the ground.)
- Butt Kicks. Jump up and bring feet to gluteal muscles ("your butt") before coming back down.

Altitude Jumping

- Jump over 3 medicine balls, and then jump over a low hurdle.
- Same as above but after jumping over 3 medicine balls you jump for maximum height.
- Straddle jumps. Stand between two benches placed long ways to you. Leap up and place one foot on each bench. Jump off, land between the benches and repeat.
- Jump over a box but prior to landing turn your body 90 degrees so you land in a side facing position to the other box. Execute 2-3 side jumps and then execute another 90-degree turn to land facing forward or backward.
- Stair jumps. Do forward and/or side jumps, taking 2-3 stairs at a time and move upwards as fast as possible.
- Skipping in long high bounds for 100 meters or more is considered excellent for the quadriceps (the leg's primary kicking muscle).
- Kangaroo hopping with the feet together for 50 meters or more is excellent for the ankles and calves as well as the quadriceps.
- Springing knee touches, which are used by many judoka, are excellent leg burn outs (lactic acid build ups), but must be done carefully to prevent knee injuries. Do these on a mat, never on a hard surface. Start by kneeling on one knee with your hands joined behind your head. Explode high into the air, switching legs so that you first land on your toes and then sink down into a kneeling position on the opposite knee. Do not land on the knee directly. 30 to 50 reps should exhaust you.
- Silent leaping is an old Hapkido standby. It starts with a stance shoulder width apart. Jump as high into the air as possible, trying to touch your knees to your chest. Land with the feet spread wide, sinking down so that the shock of landing is absorbed as quietly as possible. Again, 30 to 50 reps should produce burnout.
- Obstacle leap ups consist of jumping with both feet onto a box or table without using your hands. An old Hapkido version of this was to dig a deep hole while periodically jumping out of it in the same manner as was

mentioned until the hole was too deep to jump out of. The hole was then refilled by the student who continued to leap out of it from time to time until it was completely filled.

Jumping with Weights

Jump exercises with weights can also be done at this time (and some even earlier). For example, hold dumbbells in the hands and do squat jumps for 8 - 10 reps, 2 - 3 sets. You can also do split squats with or without dumbbells in the hands or barbell on the shoulders. The key in these two exercises is to jump as quickly and as high as possible. If holding weights in the hands or on the shoulders is not comfortable you can hang weights on the waist or wear a weighted belt.

If you are involved in the long jump or high jump, you can execute 5 - 7 take-offs while moving forward, imitating the take-off in the long jump or the high jump.

If you are a sprinter and wish to improve running speed for a short distance of up to 40 yards (or a football player who is tested in this event), you can do short, fast jumps with the take-off on one or both legs and variants of the triple and quintuple jumps from place. In the "short" jumps the exercises are executed with maximum take-off power.

Soviet research has shown that the "short" jumps substantially improve running speed for short distances up to 40 yards. (Hint to all power, i.e., football, hockey, and other athletes) Long jumps help improve running speed in longer distances and also on shorter distances started from a walk. In the short jumps you have the ability to improve starting acceleration while in the "long" jumps you raise the level of specialized speed-strength endurance and maximum running speed.

If you wish to develop both starting acceleration and your level of speed-strength endurance, you should do both long and short jump exercises. If doing both short and long jump exercises in one session, the "short" jumps should precede the "long" jumps.

In executing the jump exercises to improve sprinting speed, the lower leg should move forward smoothly and the landing should be on the ball of the foot. It should not be a hitting placement, but instead the foot should be placed on the ground resiliently and immediately begin with a pawing action. The jumps are executed on a low trajectory with arm action synchronized with the leg movement.

Dangerous plyometrics are any ones that produce excessive stress on joints. Such exercises as jumping down from a height, or jumping down with an immediate jump up upon landing, or pushups where you fall like a tree into a pushup position, should all be avoided. Plyometric exercises are intense. They should be done in conjunction with your regular workout but allow a day of rest in between sessions. Remember to strive for maximum effort while executing every repetition. It's better to put out maximally and only do 15 of the 20 reps than it is to complete the 30 and still have a little energy because you saved too much in reserve. Put out for higher performance.

Squat jumps:

leapfrog, bunny rabbit, etc.

Kick march

Stand straight, hands behind back. Walk forward at slow pace, keeping both knees straight and lifting foot to waist level. Sort of like a funeral march goosestep.

"Deep Lunge" (hurdler stretch march)

Another leg drill. Step forward fully, turn lead toe 45 degrees out, and go all the way down to the floor. Will end in hurdler stretch position. Stand up using lead leg and bring rear to lead foot. Repeat.

Ankle lifts

Go into a deep karate-like forward stance with all your weight on your front foot(thigh horizontal). Cross forearms and lean on lead knee. Extend lead foot until on ball, heel as high as possible, and lower to floor. Repeat. If your rear foot slides back, not in deep enough stance (cheating). Goal: 80 in 1 min. (80 in 50 sec., but last 20 are much shallower & cramping starts).

Run in place

Arms extended at shoulder level forward, raise alternate knees quickly, staying only on toes.

3 Types of Leg flicks (Sifu Victor Rivera)

1. Raise knee to waist height and flick the lower leg in & out as quickly as possible. (for a more difficult exercise, try this with the punches.)
2. Extend the leg out in a WC front kick. Rotate the leg through the hip joint without moving the knee.
3. Start with leg on floor. Bring knee up to center and then out to kicking position.

Gymnastics Leg Exercises

1. Sit down on the floor, with your back straight.
2. Take your legs and put them in front of you. Hold them together.
3. Put your arms in back of you for support.
4. Now do leg raises with your back straight. Work the muscles on the tops of your legs, and your abs too.

5. Now take your legs and put them as wide as you can, with your back and arms in the same place.
6. Now do leg raises from there.
7. Finally, take your legs from the wide position and bring them closer together, while they are elevated.
8. Now to make them even harder, do them with your weight supported on your hands.
9. You can try supersetting all these variations back to back, or do only one.

Leg switches (Described by Alice Chang):

Hard to describe how to do the actual switch other than to say that when you do the switch, you should move your legs as fast as possible. Here's my best shot:

1. Stand in YCKYM in front of a bench.
2. Place the back of your left heel on the bench. Your foot should be at the edge on the bench so you have plenty of airspace in front of you.
3. Quickly, put your left leg back on the ground.
4. Right as the left leg touches, quickly lift the right leg and put it on the bench.
5. Try to keep your head level and your upper body still.

The whole point of this one is to develop quickness in lifting of your leg (for kicks) without moving your upper body so much.

Try not to have both feet on the ground at the same time, and don't let your head bob all over.

Negative Leg Curl

To develop speed, you should be building your hamstrings, because those muscles help you push off. This move lets you handle a lot more weight than you may be used to. Lie facedown on a curl machine. Before curling the leg, pull your toes toward your shins. This allows your calves to assist your hamstrings during the lift, so you can lift more weight. Then point your toes away from your shins and take 4 to 5 seconds to lower the weight back to the starting position. Pointing your toes keeps your calves from helping, which forces your hamstrings to work harder as you lower the weight. Try three to four sets of six to eight repetitions. Try this with a resistance band as well, standing up or prone.

Upper Body

Pushups – there are many types and variation techniques listed here, as well as elsewhere in this document.

A. Hindu Pushups ("dands")

1. Start with your hands on the floor, shoulder-width apart.
2. Your feet are on the floor (no knees) and your legs are wider than shoulder-width apart.
3. Starting position is butt in the air, head looking back to your heels.
4. Bend your elbows and lower your body in a circular arc, until your arms are straight. Your chest is up and your hips are almost touching the ground.
5. Look to the ceiling. Exhale.
6. Push back toward your heels once again. Straightening your arms and stretching your legs, as in #3.
7. Repeat.

This is a great exercise and one of my favorites. In addition to being a great upper body exercise, it's great for increasing flexibility in the spine and is a fantastic pick-me-up whenever you feel lethargic. Get on all fours and press your butt in the air. Bend your back as if you were trying to make a triangle. Your head should be aligned with your back facing towards your feet. Take a deep breath and then sweep down in a circular arc motion and bend back looking up at the ceiling and breathing out. From there, push back toward your heels and start over.

Shoot for 25 straight reps in the beginning. Some of you will find this easy, others will find it awkward and 25 will be a real challenge. Don't worry about your form too much as that will improve as you make progress and get more comfortable with the exercise. Shoot for a goal of doing 100 continuous reps. Be sure that you make deep breathing a part of this exercise to reap the full benefits.

B. One-armed Hindu Pushup

It is done the same way you do a regular Hindu pushup. But on the one-arm variation, your pushing hand has to be positioned more toward the middle of your chest. If it's out to the side in the regular position, you'll lose your balance and hit your face on the floor. These are really tough.

C. Regular Pushups

Get down in a push-up position

Hands should be shoulder width apart, back straight. Feet together.
Lower until chest touches floor, or nearly.
Repeat

D. Modified Push-ups on knees

Same as regular, but done on knees.

E. Elbows-in Pushups

Same as regular, but with elbows close to the body and ribs. Good for punching.

F. Knuckle Pushups

Done same as regular, but on fists.

G. Wrist Pushups

Done on the wrist, with palms facing up. Good for flexibility, be careful if you have bad wrists. Can be done with wrists back, facing each other, forwards.

H. Fingertip Pushups

Done on fingertips; great for finger, wrist and forearm strength. Can vary by picking up fingers as you get stronger and doing them on less fingers. Bruce Lee was famous for doing pushups on his thumbs.

If you can't do full pushups. Fingertip pushup position and stay there. Stay on tips, not pads, of fingers. If too weak to do this well, go to knees or use a wall, be as slanted as you can manage.

I. Handstand Pushups

There are several variations of this movement, but I'll focus on the "easy" version. Find a bare wall and get about two feet away from it. Take your shoes to avoid making a hole in the wall at first. Get on all fours and place one knee under your chest (and let that leg support your weight). Take a deep breath and kick up with the other leg until it touches the wall. Let it support your weight until you can lift the other leg up into the same position. Bend both legs slightly and keep them there while you do the movement.

Adjust your position until you feel comfortable and then take in a deep breath. Keep your body tight and lower yourself slowly to the floor. Touch your nose gently against the ground and push back up as hard as you can.

Once you can do ten in a row off of the floor, you can increase the range of motion by using two chairs and dipping in-between. Or use some chairs or even a couple of books. Just don't attempt to increase the range of motion until you're confident doing handstand pushups off the floor. You can really hurt yourself if you don't have the necessary control.

J. Wide Push-ups

Push ups done with the arms all the way out at the sides, so body resembles a crucifix or cross.

K. Diamond Pushups

(2 per second or faster)

These are where your hands are together in front of your solar plexus. Base of your thumbs should touch, fingers point straight forward. Make sure to squeeze your elbows in as much as possible, so they rub against your sides. Once your elbows come out, you should quit – the pushups aren't doing you any good at this point.

Triangle pushups with airtime:

- Get air under your hands at the top
- Land lightly and be careful with your wrists
- Don't land with your arms locked

To get the airtime, you have to do the pushup fast. Push up fast enough that you come off the ground. This develops the explosive force in your punch. The best way is to start in the down position. Push up off the ground, then go back to the down position. This way you're not landing with locked elbows and hurting your elbows and wrists.

L. Extended Arm ("Flounder") Push Ups

Do with arms all the way out in front of you. Push up with your feet and hands.

M. Stage Push-ups - where you stop at various stages

Can be done with most up and down push ups – you stop at various points in the up and down motion, pause for a few seconds, and continue.

N. One Arm Push ups

Use only one arm to push up. Put the other one behind your back or grab the wrist with the free hand. Feet should be wide apart.

O. One Arm One Leg Push ups

From a push up position, twist the body to one side, and lift the opposite leg off the floor.

P. Reverse Palm Push ups

Push ups with palms on floor, fingers pointing towards feet. Requires a lot of flexibility.

Q. Clapping Pushups

Do pushups launching yourself in the air, clap, and go back to start. Repeat.

R. Modified Clapping Push Ups

Get into a kneeling position, palms out in front of you. Drop into a kneeling push up, then explode up back to the start.

S. Reverse push ups

Get into a gymnastic bridge. Push up and down on the arms while maintaining the arch in the back.

T. "Tablemaker" pushups

Sit on the floor, with your back straight and your legs in front of you. Keep your hands next to your body, either with fingers pointing towards your back or front. Raise your body off the floor, till your legs make a 90-degree angle, and your body makes a "table". This hits your triceps.

U. Uneven pushups

Do pushups with one hand on a block or something to make them uneven. To make it even harder, use something round like a medicine ball, basketball or soccer ball.

V. Planch push-ups

This is a gymnast's drill so it takes plenty of balance. Get in a planch position (body straight and parallel to the floor, hands the only thing touching ground, should be near your hips) then do the push-ups.

W. Pseudo-planch push-ups

Easier to do. Put your hands on the floor and draw your knees up to your chest so you're balancing on your hands. Then do your push-ups without letting your knees touch down.

X. "Tiger Push-ups"

Lie down, put the soles of your feet against a wall. Walk your hands toward your feet. When you get to a point where your body is basically bent in half, turn your palms towards each other, fingers facing each other. Lower your head so it touches your hands. This is an old Wing Chun exercise. I realized when I tried it that it is pretty hard, yet different from a handstand pushup.

Y. Roll ups

In knuckle pushup position, bend elbows so weight rolls down bottom of fist and forearm to rest on elbow. Straighten arms to return to first position.

Variation: in down position, flex wrists to slide 2x4 under knuckle. Use wrist to raise body.

Z. Wobble board pushups

Do pushups on a board that wobbles, like a little seesaw. Makes it harder because you have to balance while you do them.

AA. Shock ups

knuckle pushup position (elbows in), lower until chest is 1 in. off floor. Raise until triceps horizontal, then punch and shock yourself off the floor. Goal: 35 in 1-min.

Advanced: 1-arm, incline, 2-hand headstand.

BB. Shoulder lifts

Pushup position, knuckles on floor, fists tilted outward @ 45 degrees. Relax the shoulders so blades contact, then lift up as far as possible and hunch the back. Keep buttocks down. Goal: 50 in 1 minute.

CC. Palm ups

From pushup position, raise from palmheel to on ball (finger base edge) of palm. Goal: 15

DD. Advanced palmup: roll up to fingertips . More advanced: roll up off fingertips airborne, land on palms. Finally: land on fingertips.

EE. alternating palms

On floor in pushup position, feet spread. Pull one hand strongly back until shoulders turn vertical, elbow drawn far back. Jab hand down to floor as pull other elbow far back until shoulders vertical and opposite. Move as quickly as you can.

FF. The "X"

Lie on the floor as an X. Lift the body up so only the hands and feet touch the floor. Chest should be no more than 6" off the floor, back straight. Arms locked. Goal: 1 minute.

GG. HFL Triceps Push up

Need a bar 2-ft. off ground for this, can vary difficulty by changing foot distance – further with weight on toes is harder. Weight on feet with body more folded is easier. (opposite of Hindu pushup.) This is tough on the joints, don't do this until you have a lot of experience with other push ups. REAALLLY hits your triceps, I can't even do one.

√ Grip bar palms down, hands close together as possible. Back away from bar with hands still in place.

√ Keep legs together and upper arms parallel to each other.

√ Bend at elbow, lower self down in a semi-circle until head is underneath bar and you can't go any further.

√ Push back up and rise on toes. Calves push against arms – gives more resistance to exercise.

Pushups can be varied further by using handles, cables to add resistance, or by elevating the arms on a chair or the legs on a chair. You can also vary them by making your legs wider apart to make it easier to balance, and gradually moving them closer together until the feet touch. You can even cross the feet over each other so you're doing them on one foot. Or you can raise one foot off the floor and hold it there. You can also do pushups with your feet on the instep. Additionally, other "push up" type exercises can be found in the "Arm Plyometrics" section later on.

Rope Push up/Bar Push up/Ring Push Up (All Push and Pull variations)

Rollouts (from Prof. Stewart) – Take two dumbbells with round weight plates or rollers made for this purpose. Start by putting them together on the floor. Get down in a position similar to a pushup position, and grab the handles/rollers. Supporting your weight on them, roll them outwards until your arms are extended outwards on the side of your body, lowering your body to the floor as you do. Roll them back to the center of your body and raise your body as you do. If this is too hard, start on your knees.

Dips

Can be done on the bars, or on a chair.

Can be done knuckles in, or knuckles out

Chest Dip: Done hunched over. Lower self until feel stretch in chest. Keep head down, body hunched forward, elbows out to sides.

Triceps Dip: Done with a straight back. Keeping body straight. Pull arms in along sides as you go up.

Pump-Handles (see Gotch tape)

Arm Plyometrics

Note: To ensure that your arm is not moving explosively or very fast near the end of the range of motion, you should think of short, quick explosions.

In addition, to develop more speed you can execute the exercises at a faster rate of execution but always with the barbell coming to a stop or being quickly reversed near the end of the range of motion. After this, you will be ready for "jumping" with the arms.

"Jumping" With the Arms

This can be done in several ways as follows:

- Wheelbarrow walk. Have an assistant hold your legs up off the floor and you hop on your hands with small take-offs with double arms.
- Push-up jumps. Assume the push-up position and leap up off the floor and then back to the push-up position.
- Block Jumps. Assume the push-up position. Push off the floor and leap up to a block approximately 4" high. As you improve in your ability to jump upward, jump up as high as you can, up to 1' - 2'.
- Arm jumps over objects. As you jump up and over the objects from a push-up position, your feet will slide so that your body is still in good position.
- Jumps sideways over a low object. These are very short-range sideward jumps from a push-up position.
- Push-up jumps with a handclap. From the push-up position jump up as high as possible and clap the hands. As you improve try to increase the number of claps that you can execute prior to landing.
- Stair jumps. Assume the push-up position in front of a stairway. Jump up to the first step, get yourself set again, and jump up to the next step and so on. Go up about 4 - 5 steps. As you improve have a partner hold your feet as you jump up the flight of stairs.
- Assume a push-up position on the floor wearing socks on your feet so they'll slide across the floor. Do a series of 5 - 10 jumps in a forward line.
- Same as above. Instead of traveling in a forward line, go in a slightly zigzag line forward.

Medicine Ball Exercises

- The catching and throwing of medicine balls can also be used to develop arms and upper body explosiveness. Some of the exercises that can be done are as follows:
- Medicine ball chest pass between two people. The key to execution is making the passes as forcefully and as quickly as possible. Do not cushion the ball all the way to the chest. As soon as you receive it, repel it in the opposite direction.
- Overhead pass. Throw the ball from behind the head forward and/or upward and forward to a partner. Have him return it so you can catch and throw again.
- Side arm pass. Assume a front facing position. Have your partner throw the ball at you to the side. Catch it, return it as quickly and as forcefully as possible.

- Forward underhand pass. Have a partner throw a ball to you below waist level, catch and return it forward and upward as forcefully as possible.
- If you are a baseball pitcher or football quarterback, assume a back lying position so that the upper arms are in line with the shoulders and the forearms are up and back. Have your partner stand in front of and above you with a light medicine ball (2-4 lbs.) and throw the ball to you. Catch the ball with one arm and return as quickly and forcefully as possible. This exercise maximally develops explosiveness of the medial rotators of the arm, which is the key arm action in throwing.
- For batters, golfers, hockey players an excellent exercise is to stand sideways to your partner. Your partner throws the ball to you but in front of your body. You catch and repel the ball as quickly and forcefully as possible.
- You can also use medicine balls to duplicate the isometric contraction and then an explosion. For example, hold a heavy medicine ball over and behind your head. Hold for 5 seconds and then throw upward and forward as forcefully as possible. The same can be done holding the ball in a sidearm, underhand, or 3/4-arm position.

Pull-Ups

If you can't do pull ups, do these first:

Reverse bar pushup:

Get a bar 3 ft off the ground. Lie down on your back underneath it, with an overhand grip, slightly more than shoulder width apart. Pull up as high as possible, hold for 2 sec, then go down.

Negative Pull ups:

Using a box or chair, jump up so that you're grabbing a bar with a palm-facing grip, shoulder width apart. Lower yourself slowly (6-10 seconds). To make it harder, I stop in 2 or 3 places on the way down, pause for 5-10 seconds, then take 5-10 seconds to lower to the next pause. I do a few of these, like 3-5.

"Drunk Ups"

They are basically bodyweight rows. Lie under a table (hence drunkups) so that your feet and body are under the table, with you faceup. You are positioned so that you can grasp the end of the table with your hands reaching straight up so that your arms are vertical to the floor. Keeping your body straight, as in pushups, pull yourself up until your chin is over the edge of the table. If you put your feet on a chair, or go further under so that you are pulling up and forward, it changes the exercise a bit for variety.

Once these get easy, start doing regular Pull-ups without assistance. Do these variations:

1. Chin-up (fingers facing you)
2. Pull-up (fingers away from you)
3. One handed Chin or Pull
4. Two-finger Chin or Pull
5. V-Bar Pull ups (see picture):
 - Errors to avoid:
 - x Leaning forward as you pull up
 - x Leaning back at beginning of motion, then shifting forward to compensate for poorer leverage at top.
 - x Maintaining upright posture throughout exercise and pulling so head goes first on one side of bar then the other. (This is similar to a commando pull up, which is a different exercise.)
 - x Don't shift forward at waist partway up just to finish it. Keep tension in lats.
 - How to do it:
 - √ Begin with shoulders extended as far up as possible
 - √ Feel stretch in LATS
 - √ Tilt head back, arch chest upward as if you wanted to touch sternum or abs to bar. It's hard to do.
 - √ Feel as if you're leaning back throughout movement
 - √ Good for partner forced reps – help behind lower back.
6. "Commando" Pull ups - doing them with bar over shoulder and touching to each shoulder alternately
7. Knee up pull ups – hold knees to chest while doing pull/chin ups. Helps work abs too.
8. Pike Pull ups – legs in a "pike" position (legs held up, parallel to ground) while doing pull/chin ups. Helps work abs too.
9. Rope or towel pull ups – tie two pieces of rope to a chinning bar, let them hang. Grab them and do pull ups. Alternately, use two old towels. Good for grip and overall strength too.
10. HFL Twisting Momentum Pull Up (see picture):
 - Develop momentum in exercises, swinging from side-to-side. You don't really go down all the way. It varies resistance to make it harder, and makes it hard to "get used to" the exercise, because of changing angle of pull. Use V bar or grab bar with alternate grip.
 - √ Grip bar. Pull up, twist to one side so head is on one side of bar. At same time, arch chest up to bar like in V bar pull ups.

- √ Lower self as swing head over to other side of bar. Maintain back arch. Keep arms slightly bent like in picture.
- √ As soon as you cross under bar, pull self back up.
- √ Feel as if you're leaning back entire time.

Key Point for all pull ups: When doing pull-ups, always use your thumb as part of your grip.

You can also vary all of them by doing them narrow or wider-grip; the narrower ones concentrate more on biceps, the wider ones do more lats and shoulders. They all work the grip.

Pull-up routine

- Ten pull-ups with hands in still rings
- Five pull-ups to each hand from still rings
- 10 pull-ups from parallel bar with hands reversed
- 10 pull-ups with hands holding parallel bar like a baseball bat
- 10 pull-up rows from back with parallel bar over chest

"The Dirty Dozen"

My friend and I learned this routine from Demetrius "Oaktree" Edwards, former world kickboxing champ and Mike Tyson's sparring partner. It is challenging, but packs on muscle quick.

Do 20 push ups.

Without pause, do 20 chair dips.

Without pause, do 20 modified push ups, elevating the front of your body on a chair.

Wait 30 seconds. Repeat 2 more times.

Whisking Arms from SLT

Hold arms at shoulder level, hands over opposite elbows. Whip arms out: shoulder, elbow, hand, then back in. Repeat lots. Return fully to closed position, keep arms high. Goal: 80 in 1 min.(averaging 130+)

Towel training

twist towel until several knots(5+), then hold at chin level and straighten towel with elbows locked. Do for a minimum of 5 minutes. Goal: 30 minutes.

Shrugs

Shoulder lifts while standing, moving shoulders horizontally forward and back as fast as possible with full range of motion. Hands in fists, elbows locked.

Spring Expander/Cable Exercises:

From what I have read cables/rubber tubing have a number of interesting attributes that make them very useful "Cable" below means any sort of sport-specific elastic tubing used for resistance work, such as rubber tubes, bungee cords, and springs.

1) Unlike weights, the resistance of cables comes from stretching the cable itself and NOT the downward force of gravity. This means when you are stretching a cable in a given direction, the resisting force is entirely in the same plane. This has some importance for sports like grappling where you are often not lifting an object but exerting force in planes that are other than simply upwards from the floor.

2) Cables unlike weights do not provide a constant resistance. The resistance increases proportionately with the degree of extension of the cable. This means it has a different "feel" than lifting weights, and thus provides an additional training stimulus. It also has the maximum amount of resistance when the cable is fully extended, as opposed to weights, which for the most part rely on a great effort at the beginning

3) Wrestlers enjoy doing cable work because the tension that one feels in pulling a cable more closely resembles the "feel" of resisting a live opponent. Similarly, arm wrestlers utilize cables as it provides a good simulation of a live opponent, and it allows resistance parallel to the floor (not perpendicular as with weights. (Remember that Sly Stallone movie where he was a truck driver who was an arm wrestler. In his truck, he had a cable thing set up that he kept pulling on with his wrestling arm.)

4) With cables, the resistance comes totally from the stretching of the cable, and not from the weight of the cable. This means that it allows one to better isolate the muscles that are being targeted, as the body itself is not involved in supporting any significant weight.

5) Cables are very portable. They lend themselves to working out while traveling etc. Secondly, one can combine cables with bodyweight exercises, and simultaneously reap the benefits of bodyweight calisthenics, lifting a weight against the forces of gravity, as well as working against the elastic forces of the cable.

I believe cables, springs, and cords have a lot to contribute to a conditioning program. I think they are particularly useful for martial arts conditioning because they allow you to increase the resistance and decrease the reps in the bodyweight exercises like pushups, squats, etc. This ensures that the reps done keep the exercise within the strength/endurance development range rather than pure endurance, which is what you want.

- 1) chest expansion, reverse grip
- 2) behind the neck pull down, reverse grip
- 3) Overhead Downward Pull - Knuckles In
- 4) Overhead Downward Pull - Knuckles Out
- 5) Two Arms Lateral Raise - Front
- 6) Two Arms Lateral Raise - Back
- 7) Right & Left Arm Front Chest Pull Anyhow
- 8) Two Arms Front Chest Pull at Attention
- 9) Right & Left Arm Military Press - Behind Back
- 10) Two Arms Back Press at Attention
- 11) Dislocation at Attention
- 12) Two Arms Press from Behind Neck
- 13) Two Arms Front Chest Pull Anyhow
- 14) Two Arms Upward Front Chest Pull - Feet apart
- 15) Two Arms Back Press Anyhow
- 16) Dislocation Anyhow
- 17) Right and Left Arm Upward Push Anyhow
- 18) Right and Left Arm Front Chest Pull - Erect
- 19) One Arm Curl
- 20) One Arm Reverse Curl
- 21) One Arm Forward Raise - Elbow Locked
- 22) One Arm Tricep Pressup - Behind Back
- 23) Lying on Back, Above Head Expand With Deep Breathing
- 24) Seated Front Expander While Lowering Torso to Ground
- 25) Seated Expander (Behind Shoulders) While Lowering Torso to Ground
- 26) Lying Expander with Leg Lifts
- 27) Lower Back Stretch With Front Chest Pull
- 28) Front Chest Expander With Inward Wrist Curl
- 29) Standing Leg Pulldown
- 30) One Arm Clean With One Foot In Loop
- 31) One Arm Snatch With One Foot In Loop
- 32) One Arm High Pull
- 33) One Arm Cross Body Row
- 34) Lying One Leg Press
- 35) Lying Leg Expander
- 36) Lying One Leg Extension
- 37)** Lying One Leg Curl
- 38)** Lying One Hip and Leg Pushdown]

Abs/Back/Neck

This part of the list discusses the abdominal muscles (abs) - actually the muscles of the abdominal cavity. If we work the front, we have to do the back as well, to maintain muscle balance; and the sides complete the package. The abdominal muscles may actually be done at either the end of, or the beginning of, your workout. At the beginning, the ab routine can function as part of your warm-up. There are some who prefer to do them at the end of their workout, especially those who do very intense workouts, because of the heavy support role that the abs play in all other exercises. They are isometrically contracted for trunk stability, and some exercisers feel that an early ab routine tires them out before the really heavy work comes up, and prevents maximal effort. For fitness exercise, this is not a problem. As far as I know, abdominal and back exercises should be done in the following order:

Total abdominal exercises (i.e. "functional" ab exercises) --> bridges --> lower abdominals --> upper abdominals

A frequently asked question is: "how often should I work my abs?" There is no absolutely correct answer to this question. In the past it was frequently said that the abs couldn't be over-trained, so do them every day if you like. More recently it has been said that they should be treated as any other muscle. I, personally, do them with each workout; others may do them twice a week and be satisfied with the results. It is important to note that you can't burn off fat and get "shredded" abs just by doing lots of reps. You could build "killer" abs that are invisible because they are covered by fat. Only aerobic exercise "burns" fat, and it comes off more-or-less uniformly - there is no such thing as "spot" reducing. However, there is evidence you lose fat in the reverse order you gain it, i.e. if you tend to gain first in your belly then your face, it'll be lost from your face then belly. (Cardio is discussed later.)

The abdominal cavity consists of the abdominal muscles - the rectus abdominis, stretching between the bottom of the last rib on each side and the bottom of the sternum, and the pubis in the hip girdle; the internal and external obliques on each side of the rectus abdominis; and the transverse abdominis, which runs laterally between the pubis and the lower ribs, and beneath the rectus femoris. On the sides of the trunk, running between the Iliac Crest and the last rib, are the quadratus lumborum muscles, whose only function in life is side bending. And, finally, the erector spinae group, which runs up the back along each side of the spine, and is active during bending. Some exercise professionals also like to mention the intercostal muscles (there are 22 pairs of internal and external intercostals located between the ribs), but they can't be isolated - they work, or not, depending on what exercise is being done, so we will ignore them.

It is important to build both the abs and the back. When you have a strong midsection, it is possible to develop a lot of real strength and power for combat, sport, and everyday movement. The midsection contains the center of gravity of the body, what Pilates followers call "The Powerhouse", and according to Asian doctrines, the energy or Chi/Ki center, known as the *tan tien* or *hara*. Therefore one can see how important this area is, and should not be neglected. A strong set of abs protects the internal organs and provides a lot of power and strength, as well as good posture. A strong back also provides a great deal of strength, as well as spinal support. Many of these exercises can help lengthen and stretch the spine to be less compressed and more flexible, especially the back and front bridges, and wall walking. For the total ab section and bridges, I have drawn from Combat Conditioning exercises, Pilates exercises, and several other sources. The other exercises are typical ab exercises.

*****Please note, all the discussion about the muscles worked in each exercise is not original work, I got it from a website. If it helps, good, otherwise just do them.*****

Abdominal Folds/V-Ups - This used to be my favorite ab/torso strengthener, and I need to get back on them myself. Lie flat on your back with legs straight and arms extended above your head. Now, "jack knife" your body by raising your legs straight up, and crunching your stomach until your toes and fingers meet straight above your body. Legs and arms are straight throughout the movement. Imagine that you're squeezing a giant lemon with your body. You want to touch your hands to your insteps. Make sure that you lift both arms and legs at the same time.

30-60-90 leg raises

Lie flat on your back. Raise head and shoulders off ground, without tensing your neck too much. Cross arms over chest. Now raise legs slowly (5-10 sec) until they form a 30° angle off the ground. Hold it there. Then raise it to 60, then finally 90 degrees. Then lower back to 60, then 30, then down all the way. To make it harder, add more time, more repetitions, or do it with your back on a table or bench and nothing underneath your legs.

"Farmer" Burns Stomach Flattener

Stand with arms at sides relaxed. Inhale through nose without letting stomach expand (just gently tense to avoid this). Now force air down & outward WITHOUT letting it out for 2-5 seconds. Do for 2-5 minutes.

Vacuums

Bend forward expelling ALL air out of lungs. Now without inhaling stand up pulling diaphragm/stomach under rib cage hold for 8 seconds. When you release let air draw in through nose.

Tai Chi Waist Turner

Stand with arms hanging loosely at sides rotate torso letting arms bend at elbows until they slap kidney area.

Back arch with forward bend & squeeze

With hands on hips inhale as you arch back as far as you can. Then exhale as you bend forward squeezing abs.

Dynamic side bend w/isometric squeeze

Hold one arm overhead inhale as you bend as far to one side as you can, then move in & out just one half inch for 50 reps finishing with a 8 second squeeze of sides. Repeat on opposite side. {note: once doing movement you are breathing} Flex everything while concentrating on sides.

Hands overhead side bend

Lace fingers palms up overhead inhale bend to one side flex as hard as you can while holding 8 seconds.

Trunk rotators

With hands on hips inhale hold breath as you circle around then exhale each time you reach start point. Just rotate the upper body. This is done for 10 then repeat in other direction.

Some Ab Wheel Exercises:Ab Wheel Pikes

With wheel attached to feet get into a push up(top) position. Now raise butt into air by rolling wheel towards head. At the top you should be in a inverted "V" position. Make sure as you return to straight that you are careful not to "over" arch your back. This is similar to the position that Olympic high divers take when they come off the diving board.

Ab Wheel Hip Up

(sometimes called hip raise/leg curl)- Lie on back with hands down towards hips(or you can just have upper arms on floor). Now as you curl your legs in simultaneously raise hips(pelvic thrust to ceiling). One tip is to keep glutes tight & once you start never let butt touch floor until you are done.

Ab Wheel Inchworm

Perform a PW PIKE when you are at top position hold wheel in place and walk out with hands until body is straight. As you do these you will move across room.

Pilates Exercises

These exercises look a lot easier than they are. Use your abdominal muscles to control all your movements with patience as well as grace. They use the deeper abdominal and torso muscles to develop functional strength, power, and ease of movement.

THE HUNDRED (BEGINNER)

How: Pull your knees into your chest, bring your legs up, then lower them.

Pump your arms up and down 100 times, inhaling and exhaling through your nose every five counts.

Why: To warm up the body, get your blood pumping and your breath circulating

THE TEASER (INTERMEDIATE)

How: Pull your knees into your chest, then extend your legs out at a 45-degree angle. Roll up into a V with your arms pointing at your toes.

Bring your arms back to your ears and roll back down to the mat.

Why: To exercise balance, control and breathing

One traditional abdominal exercise I have omitted from this discussion: sit-ups. Sit-ups have, in recent times, been supplanted by "crunches," because of the possible back problems associated with them. The problem may be due more to improper technique, than to inherent risk, but crunches are both safe and effective, so we will stick with them.

There are four basic spinal movements:

1. flexion - bending forward from the hips
2. extension - straightening up from the flexed position (bending back past vertical is hyperextension)
3. lateral flexion/extension - side-bending.
4. rotation -either twisting the upper body with the hips maintained in the forward facing position, or twisting the lower body while the upper body remains fixed in the forward facing position.

The following exercises should be done after the "functional" exercises. They can strengthen weaker areas, or can be used to There are three basic ab exercises that, supplemented with side bends and back extensions, cover the complete abdominal cavity: front crunches, reverse crunches, and right- and left-side diagonal crunches.

Front Crunches

For this exercise, which concentrates on the "upper" abs (the upper portion of the Rectus Abdominis), one starts by lying in the supine (on your back) position, knees up, to relieve stress on your lower back; and with the arms in one of the following four positions, depending on your state of abdominal conditioning:

1. straight arms between your knees (This is the beginning position; the easiest center-of-gravity (C-O-G) position for doing crunches.),
2. arms crossed on your chest (The next highest degree of difficulty.)
3. 3- hands clasped behind your neck, with your elbows pointed out to the sides (This position is to allow you to support the weight of your head, but not to allow pulling your head forward.) and,

4. hands overhead, with arms relatively straight (This is the most advanced C-O-G position.)

You can only raise the level of intensity now, for this exercise, by adding weights - barbells or dumbbells - except by doing more reps, of course.). Now that you have assumed the desired starting position, raise your shoulders off the floor/mat, with your eyes looking out at about a 45 degrees angle - the point here is to keep your neck in the neutral position, your chin should not touch your chest. Your neck should, in fact, not move during any crunch. The distance that your shoulders raise off the floor is not really important. The goal here is to contract the abs to their max, not to reach 25 reps, or 50 reps - it is to make your abs work. When one thinks about reaching a specific number of reps, one often holds a little in reserve, and, therefore doesn't get the most benefit for effort expended. In addition to the neck talk, there is one more postural "thing" that needs to be mentioned - the lower back. You will often be told to keep it "flat." That can be interpreted to mean that you should maintain its normal, slight, inward curve - also called "slight lordosis," or the "neutral position." The real point to be made here is to avoid excessive arch in the lower back - always. When you have reached the top of your crunch, pause, then slowly lower yourself back to just short of the starting position (i.e., keep a little tension in those abs - they'll love you for it). You have now completed one rep. Now do as many reps as you can up to 50. When you can easily do 50 reps, it's time to change your arm position, add weights, go to multiple sets, or just add another lower ab exercise to your program.

Additionally, for WC purposes, try throwing straight chain punches continuously during the crunch. I like to add them to various exercises for two reasons:

1. you can never throw enough punches
2. it adds to the level of body awareness and concentration by making you concentrate on more than one thing at once.

There are some other variations on this:

Toes up crunch

Do the same as above, but with the toes off the floor and heels on the floor.

Cross Legged Crunch

Get into a cross legged position (Indian sitting) and do crunches. This just works the muscles in different ways.

To avoid having to repeat cautions, reps, etc., this insert is to instruct you to do all crunches using the guidelines provided above for "Front Crunches."

Reverse Crunches

For this version, which concentrates on the "lower" abdominals (this is still the Rectus Abdominis, but from the lower attachment), and also the side abdominals. one, again, assumes a supine position. With your thighs vertical, and your feet as close to your rump as you can keep them, move your knees toward your chest until your hips roll up off of the floor. Contract your abdominal muscles to lift hips off the floor and bring knees toward chest. Don't swing your legs! Concentrate on using your abs to lift your pelvis toward your lower rib cage. Go slow and keep breathing. Pause, then slowly return your thighs to vertical. You have now completed one rep.

Easier: Hands on floor. Harder: Elbows on floor, hands in air.

Curl up

this exercise is slightly more difficult than a crunch but safer than a situp. Works both upper and lower abs, plus side muscles.

1. Lie flat on your back with your hands cupped behind your ears, elbows out.
2. Bend your knees at about a 45-degree angle, with your feet shoulder width apart and about 6 inches from your butt.
3. Keeping your lower body stable, curl your upper torso in toward your knees, raising your shoulder blades as high off the ground as you can get them.
4. Move your torso all the way up in a count of two, concentrating on the contraction of the abdominal muscles.
5. Count to two again as you return to the starting position. Don't rest in between repetitions.

Combination Crunch:

Do the standard crunch and the reverse curl at the same time. If you need a challenging ab exercise, this will work great. This stresses both attachments of the Rectus Abdominis at the same time. In this variant, as you raise your shoulders, you simultaneously start pulling your knees toward your chest as you do the upper body part.

Diagonal Crunches

For this exercise, again assume a supine position with your knees very flexed. As you start to raise your shoulders, you move one shoulder (actually, one side of your chest) toward the opposite knee. The object is not to touch the elbow to the knee, it is only to add rotational movement to the crunch, and thereby concentrate on the Obliques. You can alternate from side to side, but you will get more out of the exercise by completing all reps to one side, and then switching to the opposite side. Note that these muscles are more important to flattening the abdominal wall than is the Rectus Abdominis, so don't neglect them.

Abdominal Vacuums

Here's how to give your abs a workout anywhere, anytime, without breaking a sweat and without anyone knowing what you're doing. This exercise is not very commonly done, but it focuses on the Transverse Abdominis, which plays a significant role in flattening the abdominal wall. You can do this exercise in almost any conceivable position, but let's start in the standing position, hands-on-hips. Now start contracting your abdominal muscles - do this as if you were going to touch your abdominal wall against your spine. Inhale and suck in your stomach until it feels small and tight, as if you were trying to touch your belly button to your spine. Hold that tension for five seconds, then exhale. The contraction is really a forced exhalation. When you have completed the abdominal contraction, with your lungs just about empty, puff out your stomach and tense the muscles again. Hold that position for five seconds, then inhale.. Complete up to 10 reps. Note that what is important is the intensity of the muscle contraction, not the length of the "hold," or the number of repetitions. You can also try these during your workouts, and while on all fours. They do stuff like this in Yoga. It helps teach muscle control.

Back Extensions/Boat Exercise/Hyperextensions:

This exercise is done at the conclusion of your ab exercises as a stretching/strengthening routine for the muscles in your lower back (Erector Spinae group). This is done even if your workout includes a back routine. This exercise is part of the normal "stretch what you train" theory. In its simplest form this can be done at home with no equipment, unless you count your body.

Start from a prone position - your arms may be anywhere you like: overhead, next to your sides, wherever. Raise head, shoulders, shins, and thighs off floor, and the spinal erectors should be contracted. Now raise either your upper body, or your legs/feet, or both at the same time. Hold for 10 seconds and do 10 reps. Both of these numbers are arbitrary - do what feels good. The goal here is to stretch your abs and strengthen your back. Note that you do not want to excessively hyperextend your back. If you put your hands on your lower back as you start to raise up, you will feel the muscles contract instantly. An inch or two is plenty. For those of you who care, your buttocks get a good squeeze out of this too, particularly if you raise your feet (with straight legs, of course). Raise your head backwards, but don't hunch the shoulders or strain the neck. In another variation, you can also reach back and grab your feet, and contract back as much as possible. Try holding the position and rocking back and forth to, "rock the boat."

At this point, the generalities: how often do I do abs, how many reps, how do I position my neck/lower back, when do I breathe, all that stuff - we have covered, so that will be omitted from now on.

UPPER ABDOMINAL ALTERNATIVE EXERCISES

Rope/Pulley/Cable Crunches

These are all the same, but have a variety of names, and typically require a gym access. Using a high pulley with a rope attachment, start on your knees (this can be done standing, but bent forward from the waist); pull down on the rope, while keeping your thighs vertical - do not lower your hips - in fact, don't move them during this exercise. The only movement should be a curling action of your abdominals, and you should pull the rope down until your face or elbows are within about one inch from the floor (unless you are standing, of course). From this position, slowly uncurl your abdominals until they are no longer contracted, then repeat. Note that these crunches may also be done diagonally so that the obliques are doing most of the work.

(I have tried this by attaching a bungee cord to a chinning bar and pulling down.)

Front Crunches with legs vertical

These are done exactly as described above, only your body position is different. You fully extend your legs from your hips - straight up in the air, or leaning against a wall. This modest positional change is intended to lessen the influence of the hip flexors. As long as we are on the subject, we might as well discuss these muscles. First, they include the Rectus Femoris, which is the largest muscle in the Quadriceps group (front of the thigh); the Iliopsoas - this is actually two small muscles, according to some anatomy books, but regardless, they act as one, which run from the lower spine and hip areas to the upper part of the Femur (the Lesser Trochanter, if you must know); the Tensor Fascia Latae, which runs down the outside of the leg between the Iliac Crest (hip bone) and the lower part of the Femur; the Sartorius (the longest muscle in the body), which runs from the outer part of the hip girdle, diagonally across the thigh, down along the outside of the knee, and then curves under and attaches beneath the knee; and finally, the Pectineus, which is another short little guy running between the Pubis and the Lesser Trochanter. Okay, that's them, and now you know more than you ever wanted to know about the hip flexors. Note that these attachment points are very general, and that is good enough until we get very intimately involved in skeletal anatomy. Bet you can't wait. Now, let's talk about what they, hip flexors, that is, do. As you may have guessed, they flex the hips. As in walking or running, or millions of other activities - well, one or two, anyway. The

point of even mentioning the hip flexors is that they always get worked a little during ab exercises, and some people get intense about isolating the abs. But there is really no need to worry. These muscles need work, and they are only really intensely worked during leg lifts, sit-ups, and a few other exercises, and they get identified for those of you who might worry about isolating abs.

Front Crunch with legs on a bench - This is just another positional variation aimed at minimizing the hip flexors. One lies in a supine position on the floor or a mat, perpendicular to a bench, with thighs vertical, and lower legs supported by the bench.

1-2-3 Crunches - This variant requires three distinct upward movements. Raise your shoulders, and hold; raise again and hold; raise a third time, and really squeeze those abs. Now return to the starting position. The movement between "stops" is not significant, but the exertion at each stop is.

LOWER ABDOMINAL ALTERNATIVE EXERCISES

Hanging Knee Raises

For this exercise you must have something to hang by (NO, not your neck) - like a chinning bar. With your hands gripping the bar at about shoulder width, raise your knees until your thighs are parallel to the floor. You are now at the starting position. Raise your knees toward your chest, and feel your hip girdle start to curl up. Now your abs are working. Don't keep your back straight, otherwise you're not using your abs. Raise your knees as high as you can. Slowly return your thighs to the parallel position. That's one. Do as many as you can - well, not more than 50. Do 3, 5, 20, whatever you can do. The number of reps is less important than the "squeeze." A training partner (TP) can be a big help with this exercise, because there is an irresistible tendency for your body to start swinging. If he/she just holds a hand on your lower back, it will hold you still. (You can use a Smith machine, and set the bar at the level of my hips, and that will do the same thing. I don't believe in using wrist straps; if your grip is weak, work on it.

Hanging Leg Raises

Like a hanging leg raise, but keep your legs straight, rather than the bent knee variation.

You can also do these twos exercise with a diagonal lift, so that you are stressing your obliques.

Leg Lift/ Knee-In combination

This exercise can be done easiest on a bench where you can hold on to its edges. Start from a sitting (lean back a little so you won't fall off the bench) position on a bench with your hips at one end, legs extended out into empty space, and your feet below the surface of the bench. Now raise your legs until your feet are above the surface of the bench, and then pull your knees toward your chest. From this position. extend your feet straight out, and then lower them to the starting position. You have now done one rep. This exercise can be done without the leg lift. It would now be a simple knee-in (I guess that's pretty obvious, isn't it?).

Leg throws

Start this exercise from a supine position on the floor. First get a training partner. You are the "throwee," and he/she is the "thrower." Raise your legs until your feet are above your head, and hold on to your TP's ankles. She/he should be standing by your head and facing your body. If you are a little person, and your partner isn't, this may not work, but here is the drill. Your TP "throws" your legs toward the floor. You allow your legs to start on their way, but just before your heels hit the floor, you stop the downward momentum, and reverse the direction of your legs. When you reach the starting point, your TP will continue this pendulum-like movement. Continue until your abs say to stop. You might want to ask your TP not to try to throw your feet through the floor, and you should hope that he/she doesn't fall on you. That might be a little disconcerting for both of you.

DIAGONAL/OBLIQUE ALTERNATIVE EXERCISES

Knee-Over Crunches

Again in the supine position, your knees should be flexed and "laid over" so one leg is flat on the floor, with the other one directly on top of it, both knees are flexed about 90 degrees, and your back remains relatively flat on the floor. This should sound slightly contorted, because you are, if you're doing this correctly. Now you just do your crunches - both sides - and the only difference is that you are directly stressing your obliques.

Bicycle Crunches

Start in the ... you guessed it ... position. Hands are behind your head, thighs vertical. Now you do a Double Crunch, but move only one knee at a time toward your chest, and move your opposite shoulder toward the incoming knee.

Trunk Twists

Standing with feet at about shoulder width, and holding a bar behind your neck and across your shoulders (If you are at home, this can be a broom, a towel, or nothing at all - do what is convenient and comfortable; if you are at a gym, "they" typically have a special plastic bar specifically for this exercise.). Now, for the movement. You twist

at the waist until your shoulders are as perpendicular to the line of your feet as you can get them. The trick is to keep your hips as still as possible (i.e., facing forward). Only your upper body moves. It is important that you refrain from wildly swinging from side-to-side. Keep constantly under control. There is no death penalty for failure to reach perpendicular, just move through your own unique range-of-motion. Of course this exercise doesn't just work the Obliques, it's actually a pretty good full abdominal cavity exercise. It's pretty low intensity, so it might be more beneficial to a beginner, or as part of a warm-up.

Reverse Trunk Twist

In a supine position, legs straight up, rotate your legs to one side until they come to about an inch from the floor, then reverse their direction to the other side. Always keep the movement under control, and don't let your feet/legs touch the floor. For body stability, some people lie with their arms out to the sides (body like a cross) and with their palms facing the floor. This will work in a pinch, but I tend to move around without something to hold on to. At home, I once used the legs of a heavy coffee table. If you have a TP, you can hang on to his/her ankles. In a gym, there is usually something handy to hold onto. Also, if you want to increase the intensity of this exercise, ankle weights work well, but, at the very least you have the weight of your legs, without any additional equipment; that is why I prefer this to standing Trunk Twists.

BACK ALTERNATIVE EXERCISES

"Supermans"

A good starting position for this exercise is to be on all fours. Raise one arm to shoulder level, and raise the opposite leg (fully extended), and make sure there is just enough tension in your back so that you can feel it. Hold about 10 seconds, then switch the arm/leg combination. Do about 5-10 reps.

Back Twists

This exercise is done on a ham-glute developer, or a back extension "machine" if you have access to a gym; a bench will do at home, if you have a TP. In a gym, you will be lying prone on a "whatever;" your hip bones will be at the edge of the hip support pad, and your heels/ankles will be under a support pad. From your hip bones to the tip of your head, your trunk will be unsupported. Your muscles will be holding your trunk in a position in-line with your legs, or your trunk may be slightly higher than your legs. Now rotate your shoulders in either direction, as near as you can toward perpendicular. Note that you are essentially doing a back twist, but in a prone position. Keep the movement under control; this is not an aerobic exercise. If you are at home with a TP, he/she must lie across your legs to keep you from falling on your face.

Some final comments about sit-ups. They are all right to do, but have some low back risk, and are hip flexor intensive, which is okay. They need exercise too. You will get more out of sit-ups if you only raise your trunk to about 60 degrees - keep some tension on those abs - and definitely not more than 90 degrees - which compresses the anterior (sorry - "front") aspect of the vertebrae too much. If you have access to a slant board, you can take this exercise to a new dimension, but be careful with your back - you want to avoid excessive arch in your lower spine.

One more note about abdominal exercises: Inhale before you start to "crunch." Hold your breath during upward movement; then forcefully exhale at the top. As you return to the initial position, begin to inhale. Your lungs should be full by the time you are ready to start the next rep.

It has recently become apparent that it is time again to talk about abdominal exercises; not specific exercises, but postural positioning/body awareness during crunches, in particular. It is true that a complete abdominal routine should include side bends for the internal and external obliques and the quadratus lumborum, and back extensions for the erector spinae muscle group; but this "discussion" applies only to crunches for the muscles of the front and sides of the abdominal cavity - the rectus abdominus, obliques, and the transverse abdominus muscles. Let's start with what happens with your head and neck. It is very common to see someone on their back, knees up -- okay so far, but then they clasp their hands behind their heads, and with their elbows pointed straight up. Now the neck abuse begins - they raise their shoulders off of the floor by pulling on the back of their head. The result is that the head is snapped forward and the chin bounces off the chest. This movement is frequently performed at warp speed, and is intended to help frequently weak abdominal muscles raise the shoulders to "crunch" the abs. But even fit individuals can often be seen using this rapid neck snapping technique. Don't do that! The vertebrae in your neck (cervical spine) may be damaged by the back-and-forth jerking action. Instead, start with your elbows pointed out to your sides, and your hands behind your head - without locked fingers; or just touch the sides of your head. The purpose of your hands during crunches is mainly to support the weight of your head, not to help pull you into a crunch. Keep your eyes looking up at about 45 degrees, and keep your chin off of your chest. Think of it like having an apple or orange under your chin, and maintain that space throughout your crunch. Your neck should be in-line with the rest of your spine.

A second part of doing a proper crunch is to think of it as moving your shoulders upward - not curling them up. Because the range of movement is relatively slight, your body will curl slightly, but just think of it as raising your shoulders straight up.

A third item is the "flat back" issue. You will most likely hear the admonition to keep your back pressed to the floor during abdominal exercises. That instruction is intended to make you avoid seriously arching your lower back. It is actually okay to maintain the normal, modest inward curve in the lower spine (slight lordosis); but severe arching increases risk of lumbar spine injury, and keeping it pressed to the floor obviates problems.

Another issue is the speed of the exercise. It should be done slowly under control (both upward and downward movements). There are no prizes for speed, and the faster you go, the more you introduce momentum into exercise, and thereby reduce the amount of work done by the target muscle.

Bridging Exercises

Wall Walking

1. Stand with your back and heels flat against the wall.
2. Take two steps, heel to toe, until you are three feet from the wall.
3. From there, lean backward with your hands stretched above your head.
4. Slowly move your hands down the wall. Continue walking until your head lightly touches the floor while your chest is facing the ceiling in an arch.
5. Turn to your stomach and stand up again. Repeat until you have done 10 repetitions.
6. Breathe naturally while doing this exercise.

Wall Walking tip: put a piece of electrical tape on the wall at a spot you want to reach. I go down until I'm looking at the tape. Shoot for touching the tape with the nose and then the chin. When you're comfortable touching it with your chin, move the tape down about 2 inches and repeat. You gradually work yourself lower, and also have a guideline so that you know you're improving.

Front Bridge

Back Bridge

The proper method of doing a back bridge requires you to place all the weight on your forehead, not on the top of your head. You must arch your entire spine from the coccyx through the cervical vertebrae. Your hips and abdominals must thrust forward and your chest should be expanded as well. From this position you continue to arch, relaxing your shoulder and neck muscles until your nose touches the mat.

Your sole focus, however, is not simply getting your nose to the mat. Once you have attained the perfect bridge (forehead and nose on the mat with feet flat on the floor and arms folded across chest), you are to hold this position for three minutes. Count silently to 200 and you've done it. Holding a perfect bridge for three minutes is not easy.

This will help you get started on the path to building a powerful neck. No other neck exercise can give you the results that bridging will. Neck isometrics don't do it. Lying on a bench with a plate resting on your head doesn't do it. Neck harnesses don't do it and Nautilus neck machines should be avoided at all costs as they bind, cramp and put kinks in the muscles of the neck.

Do you know why the other exercises don't work as well as bridging? It's because all the other exercises *isolate* the neck muscles. Proper bridging does NOT isolate the neck muscles. It works the muscles along your entire spine as well as the buttocks, hips and thighs. In short, bridging is a movement that involves most of your body; just like an Olympic lift like the clean-and-jerk or snatch.

"Sphinx" Bridge – get into a push up type position, but balanced on your elbows. Keep your back and abs straight. Hold for as long as you can stay stable until your muscles shake, then hold some more.

Elbow Bridge

Same as Sphinx, but balance on elbow points.

Static Arm Push up Bridge – Stand in a push up position. Stay at the top of the position. Keep your back and abs straight. Hold for as long as you can stay stable until your muscles shake, then hold some more. Try not to let your neck or traps get tight; consciously relax them.

Stick Bridge – This is reallllly tough. Get into an extended pushup-type position. Take two thick wooden dowels or pieces of broomstick. Grip one in each hand. Balance on the cross sectional end of the dowel and hold for a while. As you get better, flex the arms more and more, or practice sliding in and out. Another way to make it harder is to hold the stick higher up so it is harder to balance.

Preacher – Pushup position with fingertips touching, edge of hand only on floor. Keep back and legs straight.

Neck nods - Old boxer's trick to help build neck strength and endurance. Lie flat on your back with legs straight, and hands at your side. Now "nod" your head until your chin touches your upper chest. Return your head to the mat, and repeat continuously. Try to do 50 of these and see how you feel. For a harder challenge, nod for 50 reps,

and then hold your head in the "up position" and begin turning your head from left to right at a slow but steady rate. Do these for 50. When you can nod for 100 you're getting some strength.

Yes/No exercise

Yes: Lie on back. Lift head just slightly off the floor. Raise chin to chest, then straighten neck to return to initial position. Repeat rapidly for a minute.

No: Same starting position, but keep head low and off floor as turn chin rapidly to touch opposite shoulders.

"The Deck of Cards" - There's a million different names and versions of this "game". If you do it right it's anything BUT a game. Here's how I play...step up to the table. Get yourself a deck of shuffled cards. Very simple...black equals pushups...red equals squats. Face cards are worth 10, the Ace is 1, and all other cards are face value. Turn over a card....it's the 9 of spades....do 9 pushups. Immediately turn over the next card....it's the Queen of diamonds...do 10 squats. Keep going until you finish the deck. Do whatever exercises you feel like...but just pick an "upper" and "lower" body movement. I like pushups and Hindu squats when I play. By my math, you end up doing 170 pushups, and 170 squats...340 movements in all. The goal is to finish the deck in 12 to 15 minutes. I know some sadists who keep the jokers in the deck, and assign a value of 50 to them!!! Nowadays, when I play I keep the jokers out but give the face cards a value of fifteen. This ups the ante to 200 pushups and squats...400 total movements. Again, sounds dumb, but I absolutely love doing this. It's a new workout everytime...unless you don't shuffle the deck...duh! That's just a few that I've used over the years, and I continue to use them to this day. As I always say...give them a try, and see what you can take from them. If this was of benefit, please let me know, and I'll post some additional information if you like. There's plenty of other movements besides these plus there's little variations you can do to alleviate boredom and add variety (counting games like "twenty-up", pyramiding, etc.)

Forearms

Forearms are very important for strength. Without a good strong grip, the rest of the arm is relatively useless. The following exercises work the grip and forearms and should be done at the end of the workout.

Air grabs

Stand, arms forward, elbows locked, palms forward. Grip to fists, then open up to flat palms, at a very rapid pace. Don't cheat! Works the grip and clawing ability for martial arts.

"**Waves**": palms horizontal and facing floor, raise to vertical facing wall, lower to horizontal. Repeat lots. Especially good to do after air grabs.

Sideways wave: same position as above, but bend wrists to the inside and outside, never rotating wrists or hands.

Vertical waves: arms locked and parallel. Palms flat, facing each other.

Wrist roll: start same position as waves. Bend wrists and fingers up/in/down/out and continue, fingers describing the largest possible circle on the centerline plane without moving arms. Good for developing *huen sao*.

"**trigger**" **air grabs**: start in same body position, but point with index fingers directly forward out of fists. Clench index fingers into tight fists, straighten them. Isolates muscles in the top of the forearm.

Grips

Grip exercisers. One set defined as 50 each hand.

Grip holds

Grip exercisers. Hold closed for 1 minute while bending wrist through full range of motion.

Wedge

Grip exerciser that isolates the forearm muscles. Also called the palmup machine. Definition of one set is (each hand) 40 curling the palm inwards to a fook sao position, 20 backwards (ending in a palmheel position).

WC Long Pole Exercises

Pole exercises are done with snappy motions. Should be smooth and not tense. Energy should be felt (and maybe even seen) in the tip of the pole.

Outward pole shocking

Take a long pole, tuck under armpit. Grasp pole where hand falls. Curl hand up (use thumb), and place off hand on end of pole, palm down. Curl the wrists in. Then punch and retract quickly, keeping the pole level and straight. Works the palm-up arm. Do near mirror, and look only at end of pole in mirror.

Downward pole shocking

Same grip as outward pole shocking, but shock down to waist and retract.

Centerline pole shocking

Bring pole to chest level, pointing forwards. Shock the gripped end to waist, keeping the far end still and at chest level. Improves power for low *gon sao*.

Roll the pole: hold pole in center horizontally at shoulder height, palms down with elbows locked. Roll as quickly as possible in one direction for one minute, then reverse. Do not drop or lower pole, do not stop. Try with horizontal or vertical grips. Don't forget to switch the grip.

Shifting with pole: hold pole in center horizontally at shoulder height, palms down with elbows locked. Shift with it at arm's length. Adds inertia, helps determine if you are shifting with proper stance.

Roll the pole: hold pole in center horizontally at shoulder height, palms down with elbows locked. Roll as quickly as possible in one direction for one minute, then reverse. Do not drop or lower pole, do not stop.

Spearing jabs. Hold pole at centerline, center of chest. Thrust the pole outwards.

Wave the pole: hold pole in center horizontally at shoulder height, palms down with elbows locked. Keep elbows locked and wave pole from waist to forehead height (no higher) as quickly as possible.

Shifting with long pole

Arms horizontal and forward at shoulder level, holding in pole in center horizontally at shoulder height, palms down with elbows locked. Shift with it at arm's length. The pole's inertia at the end of the shift will show you if you are shifting improperly. Off-balance, overshifting, falling side-side or backwards, all will be shown with this drill. Helps determine if you are shifting with proper stance.

Wrist Rolls – take a bar or dowel. Attach a weight to the center by a rope, twine, chain or string. Roll the bar with your hands to raise it, and roll it to lower it. Do it with your fists up, fists down, arms straight, and arms bent with elbow in.

Cardio

Jumping Rope

Try to land lightly on your feet; plopping down causes more strain on the joints and it develops more coordination and muscle control if you can land lightly.

1. Normal Grip
2. Reverse Grip
3. One Leg hops
4. Crossovers (a la "Rocky")
5. High Jumps

There are more methods, I just need to find out more.

Sprints:

- Warm up for 5 minutes. (If running, brisk walk or light jog)
- Go as hard as possible for 10 seconds.
- Go easy for 2 minutes. (If running, walk or light jog)_
- Repeat for ten sprints and recoveries.
- Cool down for 5 minutes by doing your warm up again. (the last 2 minute recovery can be counted as part of this.)

Interval Running

- Warm up for 5 minutes
- Go hard for 30 seconds – the best effort you can put out for that time.
- Go easy for 1 minute (If running, brisk walk or light jog)
- Do 8-12 intervals and recoveries
- Cool down for 5 minutes by doing your warm up again. (the last 1 minute recovery can be counted as part of this.)

Many people find this type of work out is easiest done with other people. Will help to develop a smoother running form, and ability to handle anaerobic work.

I call this the pyramid; I learned it from my college gym class. I used it to run 1.5 miles in 12:00 after only about 2 months of using it twice or 3 times a week. It is good if you are new to running on a regular paces.

Note: A "pace" is both feet hitting the ground, i.e. left, right, is one pace. I just count each time my right foot hits the floor.

Run 20 paces.

Walk 20 paces.

Run 40 paces.

Walk 20 paces.

Run 60 paces.

Walk 20 paces.

Run 80 paces.

Walk 20 paces.

Run 60 paces.

Walk 20 paces.
 Run 40 paces.
 Walk 20 paces.
 Run 20 paces.

Steady Aerobics

- Warm up for 5 minutes
- Increase till moving at 75-80% of max heart rate (220- your age). Should be breathing deeply and regularly, but only be able to carry on short bouts of conversation.
- Do this for 20 minutes.
- Cool down for 5 minutes.

Some other types of running routines:

Hill repeats

Running a hill of length 150 to 800 or so meters, with a grade of a few percent (can be on trails, fire roads, paved roads), running up the hill at about 10k effort, and recovering at an easy jog down the hill.

Hill Fartlek

Running a given route (on rolling hilly terrain, dirt roads or pavement are best) by running several of the up hills at a harder effort, with recovery going down the following down hills. Like the hill repeat workout, this will develop running strength, and a more efficient uphill stride.

Tempo Run

A run where you do a couple or three warm-up miles at normal pace, then to a period of faster running followed by a cool down at normal pace. This teaches one how different effort levels "feel" and works on increasing the running speed of your anaerobic threshold.

Another good beginner workout is hill repeats, substitute 5 x 1 mins. uphill at 10k effort for the above Fartlek pickups. The Fartlek and short hill repeats are easier on the body than longer/faster intervals on a track, so do these early on in your speed program, and after several sessions graduate to intervals and tempo runs.

Combat Running

Also, after running, I like to add running backward and sideways. Try doing that; it will help develop your legs overall better, and how to move better. Try this:

"Run" sideways, more like skipping. Hold a hand at the ready to throw a punch, the other one ready at the chest. You can either try to go higher on each skip, or try to cover more sideways distance and stay lower. Try to do a bunch of skips, then switch sides while still running and keep it up. A much harder version is to try and cross your legs sideways as you run quickly, and even harder, crisscrossing one over the other as you run. It takes a lot of coordination to do it right.

Try running backwards, looking over either shoulder. Switch back and forth.

Eventually try running backwards for a few steps, then switching back to forward by turning around and continue going in the same overall direction. Switch back and forth. Sound disorienting? It's supposed to be. Once you get used to it, it is supposed to help you get used to the possibility of different angles and directional changes during fighting.

Speed in Running

Speed is the quickness of movement of limb, whether this be the legs of a runner or the arm of the shot putter. Speed is an integral part of every sport and can be expressed as any one of, or combination of, the following:

1. maximum speed
2. elastic strength (power)
3. speed endurance

Speed is influenced by the athlete's mobility, special strength, strength endurance and technique. The anaerobic alactic pathway supplies energy for absolute speed. The anaerobic (without oxygen) alactic (without lactate) energy system is best challenged as an athlete approaches top speed between 30 and 60m while running at 95% to 100% of maximum. This speed component of anaerobic metabolism lasts for approximately six seconds and should be trained when no muscle fatigue is present (usually after 24 to 36 hours of rest).

We develop speed through the technique of sprinting. It must be rehearsed at slow speeds and then transferred to runs at maximum speed. The stimulation, excitation and correct firing order of the motor units, composed of a motor nerve (Neuron) and the group of muscles that it supplies, makes it possible for high frequency movements to occur. The whole process is not totally clear but the complex coordination and timing of the motor units and muscles most certainly must be rehearsed at high speeds to implant the correct patterns.

Flexibility and a correct warm up will affect stride length and frequency. Stride length can be improved by developing muscular strength, power, strength, and endurance and running technique. The development of speed is highly specific and to achieve it we should ensure that:

Flexibility is developed and maintained all year round through stretching. Strength and speed is developed in parallel. Skill development (technique) is pre-learned, rehearsed and perfected before it is done at high speed levels. Using high velocity for brief intervals is speed training. This will ultimately bring into play the correct neuromuscular pathways and energy sources used.

Speed work should be conducted because it is important to remember that the improvement of running speed is a complex process which is controlled by the brain and nervous system. In order for a runner to move more quickly, the leg muscles of course have to contract more quickly, but the brain and nervous system also have to learn to control these faster movements efficiently. If you maintain some form of speed training throughout the year, your muscles and nervous system do not lose the feel of moving fast and the brain will not have to re-learn the proper control patterns at a later date.

In the training week speed work should be carried out after a period of rest or light training. In a training session speed work should be conducted after the warm up and any other training should be of low intensity.

Reaction Speed Drill

The athletes start in a variety of different positions - lying face down, lying on their backs, in push up or sit up position, kneeling or seated. The coach standing some 30m from the group then gives a signal for everyone to jump up and run towards him/her at slightly faster than race pace. Repeat using various starting positions and with the coach standing in different places so that the athletes have to change directions quickly once they begin to run.

Speed Principles

The general principles for improved speed are as follows:

1. Choose a reasonable goal, and then work on running at velocities which are actually faster than your goal over short work intervals.
2. Train at goal pace in order to enhance your neuromuscular coordination, confidence and stamina at your desired speed.
3. At first, utilize long recoveries, but as you get fitter and faster shorten the recovery periods between work intervals to make your training more specific and realistic to racing. Also move on to longer work intervals, as you are able.
4. Work on your aerobic capacity and lactate threshold, conduct some easy pace runs to burn calories and permit recovery from the speed sessions.
5. Work on your mobility to develop a range of movement (range of motion at your hips will effect speed) and assist in the prevention of injury.

For combat, just remember, make sure your emphasis isn't only on running – make sure it is combative. You're not training for a marathon, you just need good speed and endurance.

Running and Calisthenics Sample Routine

- Run or sprint 100 meters - do 10 pushups
- Repeat
- Run or sprint 90 meters - 10 pushups
- Repeat
- Run or sprint 80 meters - 10 pushups
- Repeat
- Run or sprint 70 meters - 10 pushups
- Repeat
- Run or sprint 60 meters - 10 pushups
- Repeat
- Run or sprint 50 meters - 10 pushups
- Repeat
- Run or sprint 40 meters - 10 pushups
- Repeat
- Run or sprint 30 meters - 10 pushups
- Repeat
- Run or sprint 20 meters - 10 pushups
- Repeat
- Run or sprint 10 meters - 10 pushups
- Repeat
- Finished. (FINALLY!)

You can easily modify it by beginning with 50 meters and working backward. Or you could walk 50 meters and do the pushups, or jog, or run while skipping rope.

Wing Chun drills

PLEASE NOTE: YOU CANNOT LEARN WING CHUN JUST FROM PRACTICING DRILLS. THAT IS WHY SOME THINGS LIKE *DON CHI SAO* (SINGLE STICKING HANDS) AND *CHI SAO* (STICKING HANDS) HAVE NOT BEEN DETAILED HERE. IF YOU WANT TO LEARN THE ART, FIND A SIFU AND BEGIN STUDYING. THESE DRILLS MAY HELP HONE SOME OF YOUR SKILLS, BUT ARE NO SUBSTITUTE.

Pak Sao – one student chain punches, the other “paks” the punches. The “paks” should come straight down the centerline, without any swooping or sweeping motion, over overhand blocking. The punching student should feel like he/she is being pushed back. As you advance, this can be combined with stepping and/or shifting. Eventually, you can do pak da drills, in which every few “paks” the paking student steps in and punches at the same time they are paking.

Overpunching – Both students chain punch and one student’s punches cut over the other. The idea is to jockey for the center. You can do it crossing over each other hands, or same hands.

Lop Sao -- do your lop sao grabs by first “jutting” (doing a *jut sao*) the others strike. Feel along the other’s hand as you guide it down, and grab and jerk when you reach their wrist. Combine that eventually with a strike with the same hand, other hand, and shifting.

Seven Point Shifting –

1. Start from YCKYM.
2. Shift off the center 45 degrees to the left.
3. Shift right almost 180 so you are a little less than 90 degrees off your original center.
4. Shift left so you are 45 off your original center
5. Shift right so you are 45 off your original center
6. Shift left so you are almost 90 off your original center
7. Shift right so you are 45 degrees off your original center
8. Go back to YCKYM

This can be combined with any number of hand or foot techniques, and as a basis for more complicated footwork with stepping, etc.

“Wheels of the Cannon”

As Sifu Alan Goldberg said, “You can have the biggest cannon, but if you can’t get it to the battlefield, it won’t do any good. Similarly, if you have the best punch, but no footwork, the punch won’t land.”

The routine only assumes a few things:

1. You can maintain a guard position, with both hand and feet correctly placed.
2. Throw a punch.
3. Kick.
4. Shift.
5. Walk.

Therefore, the goal of this routine is to build several things:

1. To serve as a reference to different types of footwork maneuvers. This is why each move is only done 2-3 times. After doing this whole routine, the WC practitioner will review most of the beginning footwork. (Not including whatever footwork is unique to the second, third, dummy, or sword forms, as that footwork will be learned within the context of those forms.)
2. Switching the hands with the feet. Every time the feet are moved, the hands move too. This can be switching the guard position, or throwing strikes.
3. Chain stepping – one foot chases the other so you are never off-balance, no matter how big the step. The feet are NEVER crossed.
4. Balance – at key intervals, the WC practitioner is told to raise the leg or kick, simply in order to see if the balance is correct.

The routine builds from shorter stationary shifting movements, to switching the feet, to stepping forwards, backwards, and sideways, and finally to angles, and then walking naturally.

I am not sure if one would call this a drill, or a San Sik (“Separate Form” - typically short sequences containing one or two concepts and/or techniques. In some cases, San Sik are not really very formal, and may vary with almost every practice. In some Wing Chun systems there are a few, however, usually set into a specific grouping or ordered sequence, which have become part of the formal curriculum.) Either way, it helps review a lot of footwork techniques.

In this outline, observe the diagrams. However, they merely show the angles and directions, not foot patterns.

Abbreviations:

WC = Wing Chun

YCKYM = Yim Chee Kim Yung Ma

Part 1 is shifting off the center and back. It involves cutting off the center while switching hands, and then cutting back to the center.

Part 2 is shifting around the center. The WC practitioner shifts through larger and larger angles (through the original center) starting from 30 degrees and finally doing plum flower turns. (180's)

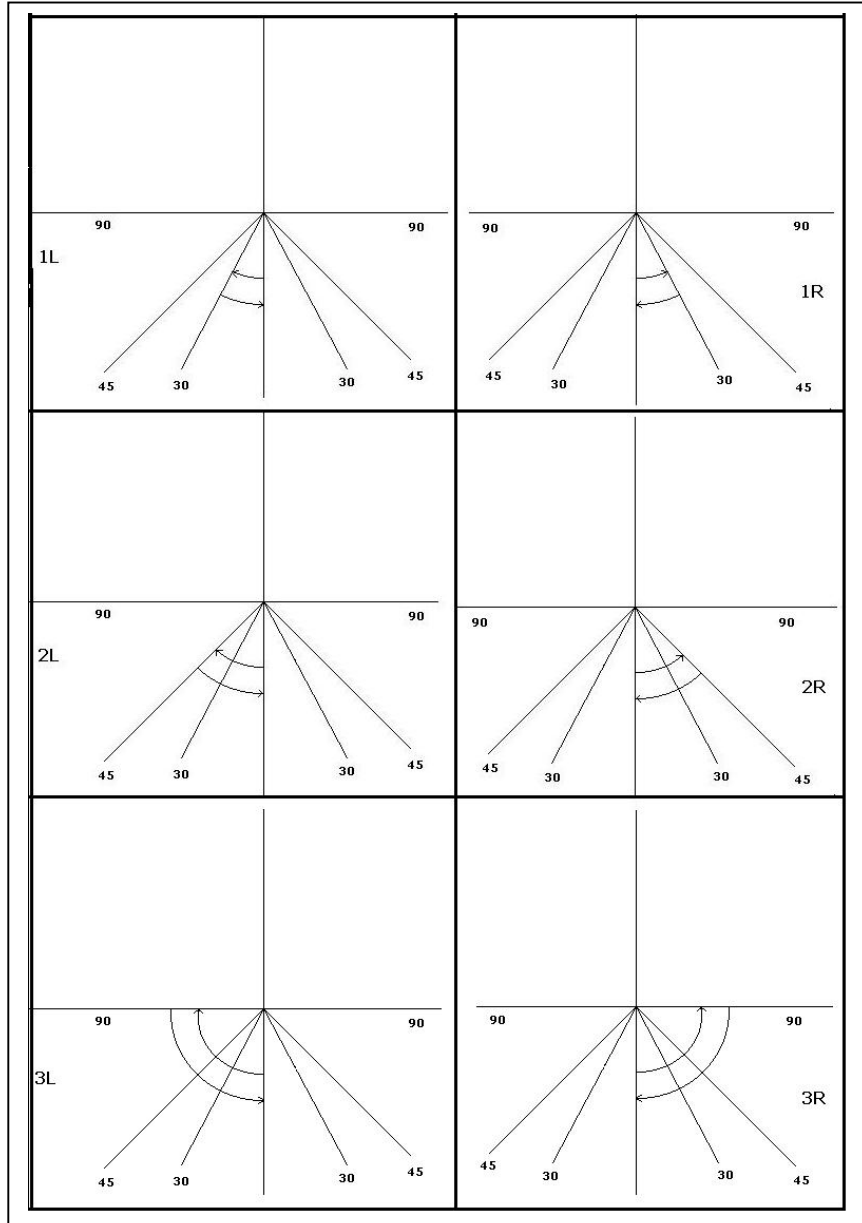
Part 3 are basic foot movements. You go from shifting the feet, to stepping sideways, front and back, to shifting and walking, to the “Sifu Shuffle”.

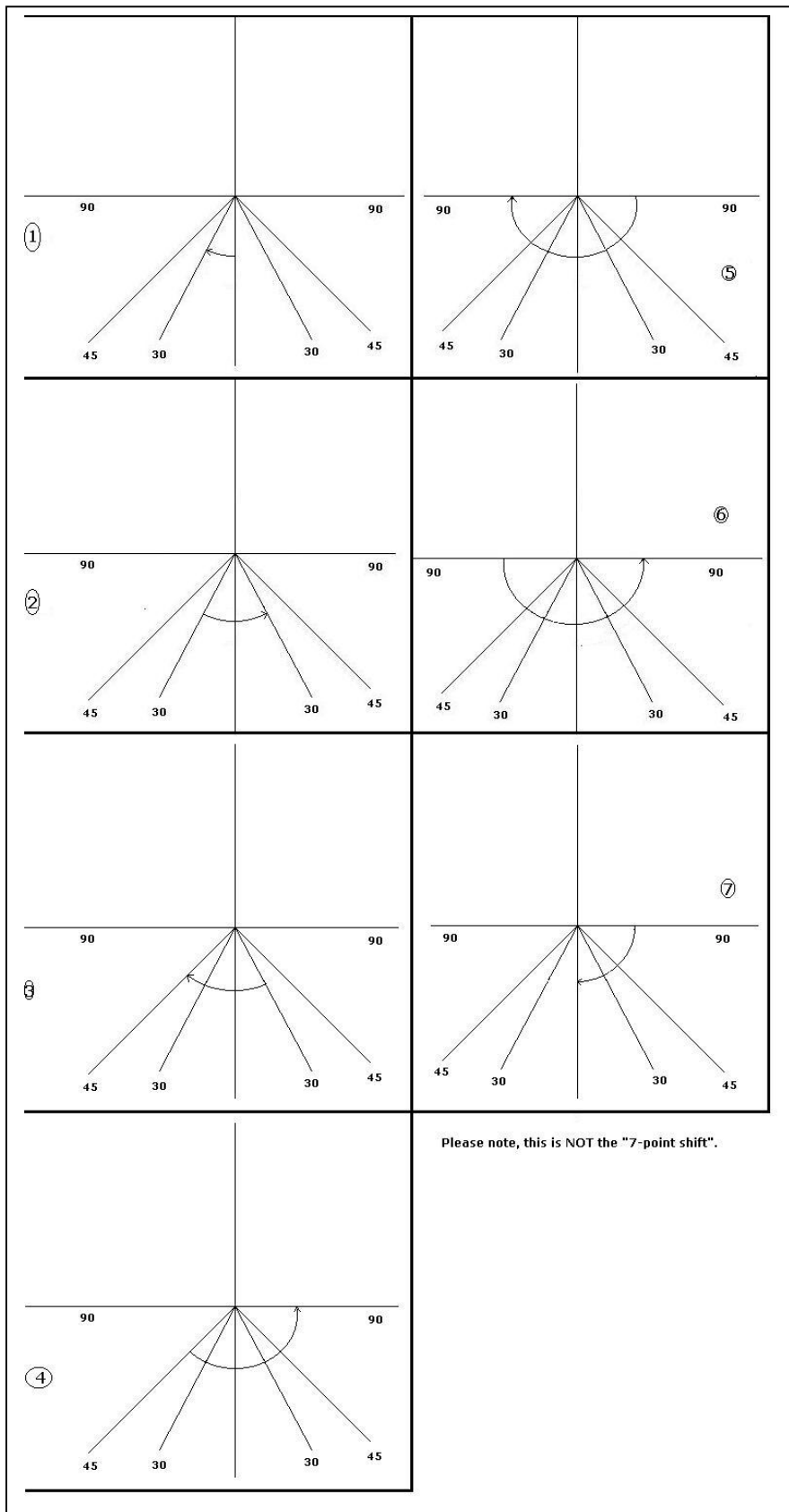
Part 4 is natural stepping. This is where the connection is shown between WC’s stances and punch and regular everyday movement. (I cannot claim credit for the concept, as it was pointed out by Sifu Goldberg in a class demonstration he once gave, but I don’t think we ever practiced it that way in class.)

Part 1: Shifting Off Center and Back:

This is all done by starting in YCKYM. The left hand is out, and the idea is that as you shift you cut with the rear hand, and then cut back to the center with the same hand. A strike can then be added. It is keyed according to the table:

- 1L. Cut to the left 30 degrees off center, then back. 1R. Cut to the right 30 degrees off center, then back.
- 2L. Cut to the left 45 degrees off center, then back. 2R. Cut to the right 45 degrees off center, then back.
- 3L. Cut to the left 90 degrees off center, then back. 3R. Cut to the right 90 degrees off center, then back.





Part 2: Shifting Around the Center

1. Shift from YCKYM to the left 30 degrees off center.
2. Shift to the right 30 degrees off center.
3. Shift to the left 45 degrees off center.
4. Shift to the right 45 degrees off center.

5. Plum flower turn left to 90 degrees off center.
6. Plum flower turn right to 90 degrees off center.
7. Turn back to original center into YCKYM.

Part Three: Basic Foot Movements

(In all these moves, remember, the hands switch with the foot movements.)

Switching feet:

1. Go into left forward stance.
2. Switch feet to right forward stance.
3. Switch back to left.
4. Switch back to right.
5. Switch back to left.

Stepping Sideways:

1. Starting from the left forward stance, take a small step to the left, moving the front foot first. You should end up in a left forward stance again. The feet should never be wider than shoulder width.
2. Take 2 more steps to the left, in the same manner as just described.
3. Take a larger step to the left. At the widest point, the feet should be 1.5 shoulder widths apart. Again, one should end up in a left forward stance.
4. Shift 90°, raise foot, shift back to previous position, raise foot.
5. Repeat all the previous steps back to the original position.
6. Switch feet to the right stance, and repeat 1-5 in the other direction.

Stepping Forward and Backwards:

1. Switch feet back to left stance.
2. Chase step three times forward, using small steps. Raise the foot, and put back down.
3. Chase step forward three times using large steps. Raise the foot, and put back down.
4. Chase step three times backward, using small steps. Raise the foot, and put back down.
5. Chase step three times backward, using large steps. Raise the foot, and put back down.
6. Switch feet and perform 1-5 from right stance.

Shifting and Stepping:

1. Shift 45 degrees left off the center.
2. Step, raise leg. Put down.
3. Shift 45degrees right off the center.
4. Step, raise leg. Put down.
5. Shift 45 degrees left off the center.
6. Step, raise leg. Put down.
7. Shift 45 degrees right off the center.
8. Step, raise leg. Put down.
9. Raise leg, put down. step back. Shift 45 degrees.
10. Raise leg, put down. step back. Shift 45 degrees.
11. Raise leg, put down. step back. Shift 45 degrees.
12. Raise leg, put down. step back. Shift 45 degrees.
13. Repeat, using 30 degrees shifts.

"Sifu Shuffle"

1. Stand in YCKYM.
2. Turn left foot 15 degrees - 20 degrees off center, while stepping the left foot forward so the feet are heel to toe.
3. Turn the left foot 45 degrees off center and shoot right foot forward so you are in a right forward stance, angled 45 degrees off the original center.
4. Raise leg, put down.
5. Step slightly forward with the front foot, and pivot both quickly so now you are in a right stance.
6. Raise leg, put down.
7. Step slightly forward with the front foot, and pivot both quickly so now you are in a left stance.
8. Raise leg, put down
9. Repeat step 5.
10. Do it in reverse, until you return back to YCKYM.
11. Combine with foot and hand techniques when you are able.

Part Four: Natural Stepping:

This part is to try and train the WC practitioner to perform the techniques from a proper stance with correct footwork, but from regular walking. Because of the design of the WC stance, it is easy to drop into it from regular walking, as it the punch is a natural continuation of the normal motion of the hands while walking.

1. Straighten up into a normal stance.
2. Walk a few steps naturally, and then without breaking stride shift left 45 degrees, lift the leg, and put it down.
3. Continue walking in the same direction, do the same thing to the right.
4. Keep walking, then do a plum flower turn without breaking stride, lift leg and punch while stepping forward, then go back to natural stride.
5. Do steps 2 and 3 but with 30, then 90 degrees.
6. Do the same thing with the "Sifu Shuffle".
7. Finally, take some regular steps and drop into a front stance, kick and punch, all without breaking stride.
8. Repeat for the other side.

Speed punching

Start in horse stance, do punches and shift on every fifth to side.

Also, try punching as much as you can in one minute, speeding as fast as you can.

Also, try punching in short bursts. First count 1-1000, 2-1000, etc, and try to throw 9 punches in that second. After reaching 10-1000, start again with 6 punches. Then do 3.

Punching with partner resistance

Do single punch step-drags up and down the floor with a partner holding your wrists providing resistance. You must move him with a punch. Remember to pull with retracting hand. At end of floor, switch grips, and he pushes you back.

Punching the wall bag

If you lose count, start over from 1. If bag falls off, start over from 1. You can do bil jee sao on wall bag to get used to palm striking too.

Stepping punch sets

Like wind sprints. Move across the floor as fast as you can, never letting rear foot move ahead of front foot, punching and throwing hand techniques as fast as possible. Also go in reverse.

Step punch on pad

Partner holds pad braced, move forward and knock them back with alternating punches. Work on technique first, speed later.

Uppercuts on pad

As above, but pad is held flat, and deliver uppercuts (turn hips, pull offhand back strongly to aid power). Do 1 minute each side, then 1 minute alternating strikes.

Backfists on pad

Start in low horse, R facing bag. R backfist into bag for knockback. Strike, do not push.

Mixed hands

Partner holding bag moves bag to help decide what hand you throw. If straight on, punch. If facing across body, hook. If holding down, uppercut. Shift with hits for power. Switch arms, then switch bag with partner.

Mixed Blocks

One partner throws hand strikes (punch, bil jee, etc.) and the defender blocks them all using one hand continuously using pak sao, jut sao, bong sao, ton sao, huen sao, etc. Can also do with walking and shifting.

Gon sao/uppercut w/bag

Partner holds small bag on their abs so you can uppercut with force.

Dock lop ma

From stance, raise 1 leg until knee is slightly bent, sole of foot forward. Knee above hip level, foot above standing knee. Hold for 1 minute, repeat with other leg.

Variation - same, but facing wall with sole about 6 inches from wall, use toe to push off or balance.

Notes: Some people cheat more with the second version. First gives more wear in the legs. Balance lasts longer if standing leg is bent slightly, and relaxed as much as possible. Stay down on heel, do not rise onto toes.

Dock lop ma w/partner dragging

Partner drags you while you drag supporting leg. DO NOT HOP!

Throwing arms out

Turned horse stance, punch from waist to chin height as quickly as can for one minute. Choh ma to other side and punch with other arm. For third minute, face forward and chain punch with both arms.

Variation - Left side for a minute, throw sets of 3 jabs, shifting for extension every 3rd jab. After a minute, switch to right side. Repeat.

"Hurdler stretch"

Put one foot directly under center, point toes out and sink down (other leg out behind on toe) until chin or shoulder resting on knee. Knee should be directly over toe. Rear leg's knee should not touch the ground. Then try to touch forehead to floor next to heel.

Tan lop pai jahng

Do in the air, leaping into the elbow strike, landing with thighs horizontal. Develops power for the technique.

Squats and punches

Partner holds a palm or a pad towards you at your nose level. You squat, rise up, and punch his hand 3 times. Repeat.

Bags

1) 2 hold bags, facing inwards at 90 degrees. 3rd person does tan sao & punch vs. hook with power. Can use 3 people w/bags, shift back and forth rapidly L to R.

2) 3 hold bags, facing each other about 1 1/2 steps apart. 3rd in center. he shifts and punches, then shifts back and punches the other bag. Use shift to power punch.

Shrugs

Shoulder lifts while standing, moving shoulders horizontally forward and back as fast as possible with full range of motion. Hands in fists, elbows locked.

Shift and pak sao

Need 2 partners. They will punch at you alternately. Shift and pak, then do not square up, but wait for the next punch, then shift back at them and pak. Use shifting to power pak, as in *gon sao-pak sao*. Hands swap position (from front-back).

Note: this conditions the puncher's forearms as much as it improves your pak and timing of the shift.

Pole Kicking exercise

2 others hold a pole at your mid-thigh height. They hold their hands flat, with the ends of the pole resting on their fingers. Their hands do not cup the pole ends in any way. You stand in stance, one foot forward, with the toe of the front foot directly under the pole. Jing gerk over the pole and return the foot to same spot on the floor. 50 kicks each leg. If you kick the pole and it falls off their hands, start over.

Comments: This is harder than it sounds. Do not do crescent kicks. Pick up the front knee, shoot the heel forward with a stomp, and return. If have a fourth person available, they hold a kicking pad at mid-thigh to waist level for you to kick. Try to maintain good stance, do not rock back as lift the front leg. Keep hands in ready position in front of you.

Sumo steps

Go into a deep horse stance. Turn 180 degrees, rear foot crosses in front of front foot, end in deep horse stance facing behind you and moved the width of your stance.

"deep lunge" hurdler stretch march

Another leg drill. Step forward fully, turn lead toe 45 degrees out, and go all the way down to the floor. Will end in hurdler stretch position. Stand up using lead leg and bring rear to lead foot. Repeat.

Bag drills

1) jing gerk (skipping forward)

2) lifting kick (skipping forward)

3) roundhouse. Partner holds bag facing alternately R & L. Kicker kicks into bag w/roundhouse, then steps down w/kicking foot into horse (hips facing 90 degrees from bag-holding partner). Pivot 180 degrees on forward foot as kick w/rear foot into roundhouse, and repeat. Basically sumo steps w/roundhouse kicks.

4) Triple palmheels w/toh ma ftwk. 1st hit moves him back, 2nd and 3rd palmheels stretch for the hit.

5) back kick. Partner holds pad horizontal and down. Stand in front of pad w/back to pad. Raise leg backwards (entire leg, try to move leg at hip, not just flex the knee) and kick the pad. Works lower back. Kick quickly, stay balanced on standing leg.

sandbag PT

1. 2-hand drop - in stance, raise to shoulder height, drop, and catch. Develops what rock climbers call "contact strength".

2. as #1, but clap.

3. as #1, but single hand.

4. as #2, but single hand.

5. as #1, but flip sandbag as release for added difficulty. (much later - single hand)

6. hold as #1, and straighten wrists so sandbag flips flat, base forward. Lower, repeat.

7. single hand drop alternating hands

8. can hold sandbags to develop hand/finger strength while doing legwork hurdler stretch, goosetstep, step-drag, etc.

bent leg wall hold

arms-length from wall. on toes, keep pelvis tilted forward. Sink low, bending knees, and lean into wall, using tips of index, middle, and ring fingers to support self. Hold as long as you can.

Focus pad power training

2 focus pads, 1 on each hand. Hold either hand a) at face level toward him (he jabs), b) at face level on edge & vertical (he hooks, elbow as high or higher than wrist), or c) at waist level facing downwards (he uppercuts). Punches should be with same arm as pad is on (R-R, L-L).

3 3-minute rounds, 30 second breaks between rounds. Hit hard and fast, work on power and endurance.

balance drill**

start standing, go into dock lop ma, then push hands forward for balance as slow back kick. Repeat without touching floor. Can do this in reverse.

Knee strikes on pad as above, but roundhouse knee strikes. Off hand can brace on padholder's shoulder, inside hand kept at head.

Elbow strikes on pad as above, but pai jahng strikes, stepping w/opposite foot and starting facing outwards. Shift strongly for knockback.

Elbow strikes start facing pad. Step forward w/R into deep W-facing low horse stance as R pai jahng. Knockback.

Roundhouse kicks on a pad

Partner moves bag from one side to other, bag faces R and L (like exaggerated SCA shield work). Step forward and kick w/rear leg at bag. Step down from kick into side-facing stance. Pivot 180 degrees on front foot and kick w/rear leg into bag. Sumo stepping with roundhouse kicks.

Hip Training Drills

Most martial artists understand the concept of developing power with the hips. Most instructors preach to their students that they must "put more hips" into their techniques. Unfortunately, few martial artists actually train their hips. Hip training is often practiced by judoka but all martial artists, regardless of style, can benefit from strengthening the hips and by improving the mechanics involved in transferring power through the hips. Because the area referred to as the hips is actually made up of various muscle groups such as the abdominals, the obliques, the glutes, as well as others, exercises to develop the hips must use full body movement. The following will list a few that I have found most helpful.

STRIKES

To develop proper power transfer through the hips when performing strikes, resistance exercises can be a great help. For punches, students work in pairs facing each other. One student positions himself in a classical punching position with the hips square and his punch only half extended. The partner positions himself in a strong stance and places his hand on the fist of his partner. The person punching must now continue his punch against his partner's resistance but by using the hips only. The punching arm must not be straightened any further. The movement comes by twisting the hips into the punch. Both sides can be worked. The same type of resistance training can be used for most strikes. For a front kick for example, the almost fully extended kick is placed against the tensed stomach of the partner. The kick attempts to push his partner back by thrusting with the hips and not by fully extending the leg. Any strike that requires that power be developed with the hips can be worked with this type of two-person resistance drill. These drills will isolate the hip movement that is involved in a particular strike, allowing the student to make corrections to increase his power. The next step is to do the same strikes with a partner but this time the full range of motion for the strike is used. The person doing the strike performs at half speed and always stays in contact with his partner. The person doing the resisting allows the strike to reach its' full extension while applying constant resistance.

This drill permits the students to incorporate the improved body mechanics developed from the first drill, with the strike in its' proper form. Finally, the strikes should be performed at full speed against a shield or heavy bag so that the students can feel the improvements.

THROWS

Hip training is also required for successful throwing. Most throws involve the use of the hips, but inexperienced students tend to compensate for improper hip usage with increased upper body strength. This presents a serious problem when there is a large weight difference between partners. To drill correct hip usage in full body throws, students are instructed to execute throws with no upper body strength. Whatever grabbing is involved is done in a very relaxed fashion. Arm strength is not used and the throws are performed using only the hips, with the arms only guiding the partner. This exaggerated use of the hips will focus the student's attention onto the body mechanics involved. Once the body mechanics are learned, a second drill can be used to strengthen the hip movements. Have one student stand behind another, draping his arms over the other's shoulders. A third student will attempt to throw the first two students. The added weight and unbalanced nature of having one student hanging off the other makes this throw very difficult and emphasizes that proper hip movement must be used instead of upper body strength. When the throw is executed, only the rear student actually falls to the ground. The person doing the throwing will maintain a grip on the front student so that he doesn't land on top of his partner. This exercise works well with throws that involve a forward motion such as hip throws, neck throws, etc.. Throws that involve the attacker falling backwards should not be attempted.

A resistance training idea for martial artists

Start with 2 pound weights in each hand. What I mean is, go and buy a set of those adjustable dumbbell bars, that weigh 2 pounds, as well as 4 1 lb. disks-1.25 or 1.5 lbs. will do as well, or a 2 5 lb. Regular weights-4 2.5 lbs. disks, 4 Fivers, and 4 Tenners.

Perform 3 sets of your hand techniques for your art. That means 3 3-minute rounds of shadowboxing, with a regular jab cross, hook hook, uppercut uppercut rhythm, with 1 minute breaks, or 60 TKD punches, 60 hammerfists, 60 high blocks, 60 downward elbow strikes, 60 ridgehands, and 60 inward knifehand strikes. Note

that there are many more hand techniques in TKD, but once you've done all those, you can combine them for the other techniques, hammerfist and downward elbow strike for a low block, for example. Then, when that becomes easy enough to do, perform 4 sets. A fourth round, sets of 80, etc. Then 5 sets. Then, GO BACK TO THREE, AND ADD WEIGHT. So now, you're practicing your hand techniques with 4-5 lb. weights. Build up to 5, then go back to three, with 7 lbs. 12 lbs. 17 lbs. 22 lbs.

DON'T FULLY EXTEND ANY TECHNIQUE!

First of all, with that kind of weight, you'll be damaging your joints. Second of all, by halting the motion before fully extending,

you strengthen your antagonist muscles, giving them the strength to halt the powerful motion. This develops both pulling and pushing muscles. (Both are important for Wing Chun – all forward motions need pushing or extending muscles, like the triceps, and pulling muscles, like biceps, are good for lop sao and returning hand techniques.)

Second of all, don't worry about what happens to your appearance. As long as the muscles are functional, it doesn't matter whether you look like Conan, with big muscles, or Spiderman, with wiry muscles.

Third, if the hand technique for your style requires a posture other than a fist, try to accommodate as possible. I use a closed fist for the inward knife hand strike. For ridgehand, an example would be to use a grip rather like that of a saber, which ends up giving an extra workout to the thumb and palm muscles.

I suggest you all try out this for your training. I have little doubt that it will greatly improve your abilities. I should note however-It's VERY intense. You'll find that being able to last through this kind of workout will greatly improve your tolerance for pain and difficulty.

*(*****I honestly think this might be a good idea, but it would be better to use this with resistance bands. That doesn't use momentum to keep the limb moving beyond the initial impetus. It also works the stabilizer muscles, which adds to power and cleanliness of technique. This would probably work with techniques and forms too.*****)*

Conclusion

Well, there it is. The 1st edition of my compilation of exercises. I hope you enjoyed reading it and get something out of it. I put a lot of work into it, darn it! LOL.

I'm still learning about a lot of this stuff. As I write this, I'm in moderate shape. I'm working on getting better. I hope that all this stuff that I've accumulated will be of help to others, and that it will help me and others to get into superb shape.

Any new exercise or routines, suggestions, comments, or criticisms should be sent to

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I hope you all enjoy this. Some good links for things like this are (and good places to get more info on Wing Chun, working out, etc)

[http //members.aol.com/sidaijoey](http://members.aol.com/sidaijoey)

my website – feel free to look around, sign the guestbook, etc.

[http //www.actionmarartmag.com](http://www.actionmarartmag.com)

my Sifu's website

[http //www.jasonlau-wingchun.com](http://www.jasonlau-wingchun.com)

my Si Gung (Grandmaster's website)

[http //www.Mixedmartialarts.com](http://www.Mixedmartialarts.com)

– go to the Underground Forum.

[http //www.mattfurey.com](http://www.mattfurey.com)

had a lot of good workout stuff, combat conditioning.

[http //www.catchwrestle.com](http://www.catchwrestle.com)

email the owner, Tony Cecchine at forum@catchwrestle.com for a link to the forum there.

[http //testosterone.net](http://testosterone.net)

[http //www.webfects.com/hea/routine.htm#](http://www.webfects.com/hea/routine.htm#)

SCRAPPER's Bodyweight Routines – a guy based in Hawaii who does bodyweight fitness stuff. He posts on the Underground Forum a lot and can be reached at basictraining@hotmail.com.

Let me know what you all think!

Joey