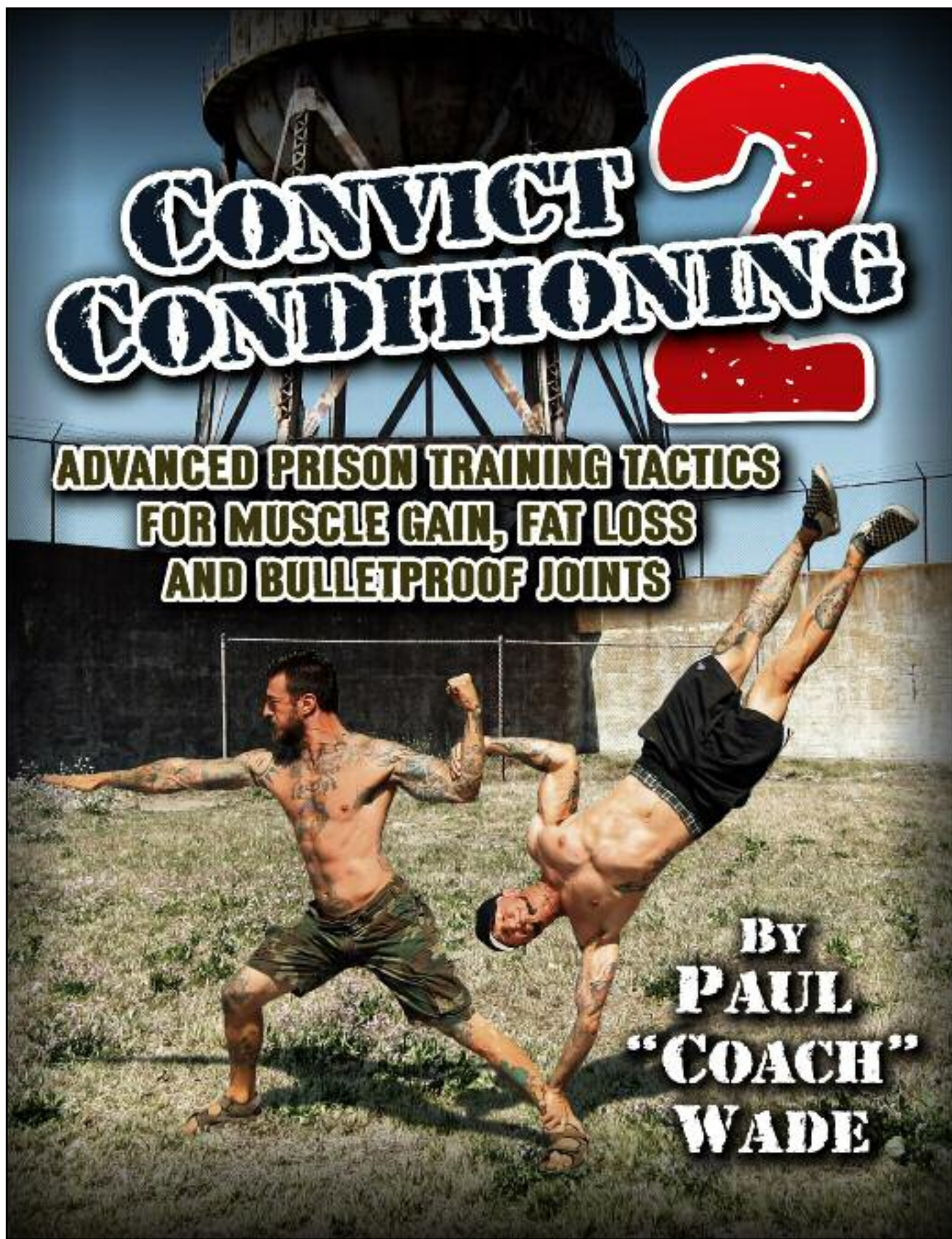


# CONVICT **2** CONDITIONING

**ADVANCED PRISON TRAINING TACTICS  
FOR MUSCLE GAIN, FAT LOSS  
AND BULLETPROOF JOINTS**

**BY  
PAUL  
"COACH"  
WADE**



# —TABLE OF CONTENTS—

Foreword	<i>The Many Roads to Strength</i> by Brooks Kubik	III
	Opening Salvo: <i>Chewing Bubblegum and Kicking Ass</i>	V
	1. Introduction: <i>Put Yourself Behind Bars</i>	VII

## PART I: SHOTGUN MUSCLE

### Hands and Forearms

2: Iron Hands and Forearms: <i>Ultimate Strength</i>	1
<i>—with Just Two Techniques</i>	
3: The Hang Progressions: <i>A Vice-Like Bodyweight Grip Course</i>	15
4: Advanced Grip Torture: <i>Explosive Power + Titanium Fingers</i>	39
5: Fingertip Pushups: <i>Keeping Hand Strength Balanced</i>	47
6: Forearms into Firearms: <i>Hand Strength:</i>	57
<i>A Summary and a Challenge</i>	

### Lateral Chain

7: Lateral Chain Training: <i>Capturing the Flag</i>	63
8: The Clutch Flag: <i>In Eight Easy Steps</i>	71
9: The Press Flag: <i>In Eight Not-So-Easy Steps</i>	89

### Neck and Calves

10. Bulldog Neck: <i>Bulletproof Your Weakest Link</i>	113
11. Calf Training: <i>Ultimate Lower Legs—No Machines Necessary</i>	131

## PART II: BULLETPROOF JOINTS

12. Tension-Flexibility: <i>The Lost Art of Joint Training</i>	149
13: Stretching-the Prison Take: <i>Flexibility, Mobility, Control</i>	163
14. The Trifecta: <i>Your "Secret Weapon" for Mobilizing Stiff, Battle-Scarred Physiques—for Life</i>	173
15: The Bridge Hold Progressions: <i>The Ultimate Prehab/Rehab Technique</i>	189
16: The L-Hold Progressions: <i>Cure Bad Hips and Low Back—Inside-Out</i>	211
17: Twist Progressions: <i>Unleash Your Functional Triad</i>	225

## PART III: WISDOM FROM CELLBLOCK G

18. Doing Time Right: <i>Living the Straight Edge</i>	225
19. The Prison Diet: <i>Nutrition and Fat Loss Behind Bars</i>	237
20. Mendin' Up: <i>The 8 Laws of Healing</i>	253
21. The Mind: <i>Escaping the True Prison</i>	271

## !BONUS CHAPTER!

Pumpin' Iron in Prison: <i>Myths, Muscle and Misconceptions</i>	285
---	-----

Acknowledgements	301
------------------	-----

Photo Credits	307
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Index	309
-------	-----



## Why the hang grip?

There are various approaches to grip work seen in gyms today. People use everything from barbells and leverage bells to spring-loaded grippers. If you're going to work your grip, I'm a firm believer that the natural way is best—by hanging, using nothing but bodyweight. If it's cool with you, I want to take a little bit of your time to check out different types of grip and explain exactly why I believe the hang grip is the best.

There are at least a dozen grip positions strength athletes employ. Let's look at the seven most often used and most basic ones, examining the pros and cons.

### THE SUPPORT GRIP

*Lifting or holding a bar upwards against gravity, with the thumb over the fingers*



**PROS:** A very functional lift for weight trainers. Where heavy weights are used (e.g., one-arm deadlifts, hand-and-thigh lifts, etc.) the fingers become strengthened and forearms developed. (Look at a powerlifter's forearms.)

**CONS:** Heavy poundages must be utilized to exploit the strength potential of the hands, and this places huge stresses on the spine, hips and other joints. In addition, the thumb gets very little work during support gripping.

## THE HOOK GRIP

*Lifting or holding a bar upwards against gravity, with the fingers over the thumb*



- PROS:** This is a little-known grip, usually used only by Olympic lifters. Wrapping the fingers over the thumb can help to keep the bar “locked” into the hands during sudden changes in velocity.
- CONS:** The hook grip is little more than a trick used to prevent a heavy bar flying out of the lifter’s fingers during explosive movements. It also puts the thumbs in a very unnatural position. Useless outside of competition.

## THE FALSE GRIP

*Gripping with the bar cupped in the palm and fingers, without the thumb curled round*



- PROS:** The false grip (sometimes called the “thumbless” grip) is a common type of grip found in bodybuilding. Many bodybuilders believe that pressing or pulling without the thumbs takes the forearms and arms out of a movement, throwing extra pressure instead on the pecs, delts, lats, etc.
- CONS:** The false grip is rarely used in grip training. It’s unstable, provides no work for the thumbs, and offers little in the way of forearm benefits.

## THE MONKEY GRIP

*Lifting or hanging by the tips or pads of the bent fingers, without any thumb support*



**PROS:** It's fun to try your pullups on doorframes using this grip, which works well to build powerful fingers. Also quite functional; resembles the hand shape used by climbers, or when lifting the edge of an unwieldy object.

**CONS:** Like all the grips reviewed so far, this kind of grip gives little or no work to the thumbs. Because of the finger angle, the palm muscles receive less work than during support grip lifting.

## THE PINCH GRIP

*Gripping a narrow object with the pads of four fingers, plus the thumb*



**PROS:** The beauty of the pinch grip is that it forces the thumbs to work hard during the movement. For this reason alone, all serious barbell grip aficionados include the pinch grip in their training.

**CONS:** Since most lifters perform the pinch grip with fairly straight fingers and thumbs, the leverage means that the weight lifted has to be radically reduced compared to other, much heavier gripping techniques.

## THE CRUSH GRIP

Gripping by dynamically squeezing something in the hands under tension



- PROS:** Heavy duty gripping forces the hands to actually move *isotonically*, rather than just staying isometrically static as with other kinds of gripping.
- CONS:** Crush gripping is notoriously hard on the finger joints and knuckles, because these areas are forced to torque under high tension. The functionality of crush gripping is also questionable; the majority of athletic movements require a good static grip, not a peak-contraction crush grip.

## THE HANG GRIP

Gripping an overhead base while suspended vertically off the ground



- The hang grip can be done from a horizontal bar, but the most productive (and difficult version) should be performed suspended from a vertical towel or rope.

The hang grip continued on next page



## THE HANG GRIP *continued*

- Hanging from a bar provides excellent training for the fingers, but very little work for the thumbs. The advanced *vertical* towel or rope version forces the athlete to utilize the thumbs to hold on. Consequently, it works all the muscles of the hand to their maximal capacity.
- Unlike standard support gripping—which involves lifting a heavy weight from the ground—hang gripping places no pressure on the spine, hips or knees. This fact alone makes hang gripping superior to support gripping, even if you never get round to using a towel.
- Because the towel is cushioned (unlike a metal bar), the fingers and thumbs have to close extra tightly around it in order to maintain the hold. This delivers the same peak-contraction strength benefits as a crush gripping (for example, on heavy duty grippers) but without the injury risk associated with full-range crush gripping.
- Fans of barbell lifting will argue that barbell-based grip lifts are superior to bodyweight hanging, because progressive resistance can be easily applied as the athlete gets stronger—more weight can be added to the bar. Students of old school calisthenics will know that this is false. All bodyweight strength techniques can be divided into progressive steps applicable to anybody, no matter their level of strength and conditioning. The same is true of hang gripping.



## The one-arm towel hang

The one-arm hang gripping a towel is the ultimate grip exercise. Even if you've trained yourself to hang by your hands from an overhead bar, you'll find this exercise a challenge. I've met some *incredibly* strong powerlifters who have had trouble with this variation; even guys who can pull more than six wheels on an Olympic bar have been known to falter, badly.

There are several reasons why even advanced strength athletes can struggle with this simple variation. For one thing, most gym-built lifters are used to picking up *bars*; barbells, dumbbells, machine handles, and so on. These devices are manufactured with relatively slim, cylindrical bars for one reason only—it makes them easy to hold on to. Unfortunately, “easy to hold” is the opposite of what you need if you desire a truly *monstrous* grip. A doubled-over towel, on the other hand, is much, much harder to hold onto than a cylindrical bar. Because the towel hangs vertically



(rather than lying horizontally), it won't just "rest" in the cup of your palm—you gotta really *squeeze* it just to maintain a grip. This works the hell out of your palm muscles. When you pick up a heavy bar, the *fingers* get work curling around the bar, but with towel hangs your *thumbs* get a major workout too. Without strong thumbs and deep palm muscles, towel hanging is straight up impossible. This is precisely what most lifters are lacking—*complete* grip strength. Towel hangs will deliver that total power.

## Lights out!

If you don't believe all this stuff I'm spouting about towel hangs, try 'em. Right now. Pick up a big towel—it can be a bath, sports or gym towel, but make sure it's the thickest one you can lay your hands on. Then go to your regular pullup bar (or a sturdy tree branch, or whatever). Loop the towel over the top of the bar, so it's double thickness, and hang from the sucker. Just one handed, mind you. If you can hold on at all, try maintaining your grip like that for a full minute.

If you can make the full sixty seconds, congrats, stud—your grip strength is already in the top one percent of the population. You are the elite. (Try hanging one-handed but with *two* towels over the bar, doubling the thickness.) If you can't hold on, welcome to the rest of the human race. In the next chapter I'll teach you how to get there.

Okay, that's enough theory to get anyone started. Now you just need a bar to hang from, a clock or watch, and a couple of towels. Bingo—you're ready to embark on a grip training program that will not only last you a lifetime and provide a helluva lot of fun and satisfaction, but will also protect your joints and give you a functional grip like a titanium vice.

Let's check out the eight steps of the *Convict Conditioning* grip series.



## HORIZONTAL HANG

### Performance

Get underneath a sturdy horizontal base, such as a desk or a table. Reach up and take hold of the lip with an overhand grip. Straighten your body and lift it off the floor so that your weight only goes through your fingers and heels.

### Exercise X-Ray

*Horizontal hangs* are a great way to begin your hand training, because they work the fingers but without the need to support the entire bodyweight. If this exercise is too tough at first, try hanging from a higher base. If you want to make the exercise harder, use a lower base or raise your feet up.

### Training Goals

- Beginner standard: 1 x 10 seconds
- Progression standard: 4 x 30 seconds



Straighten your body and lift it off the floor so that your weight only goes through your fingers and heels.





# BAR HANG

## Performance

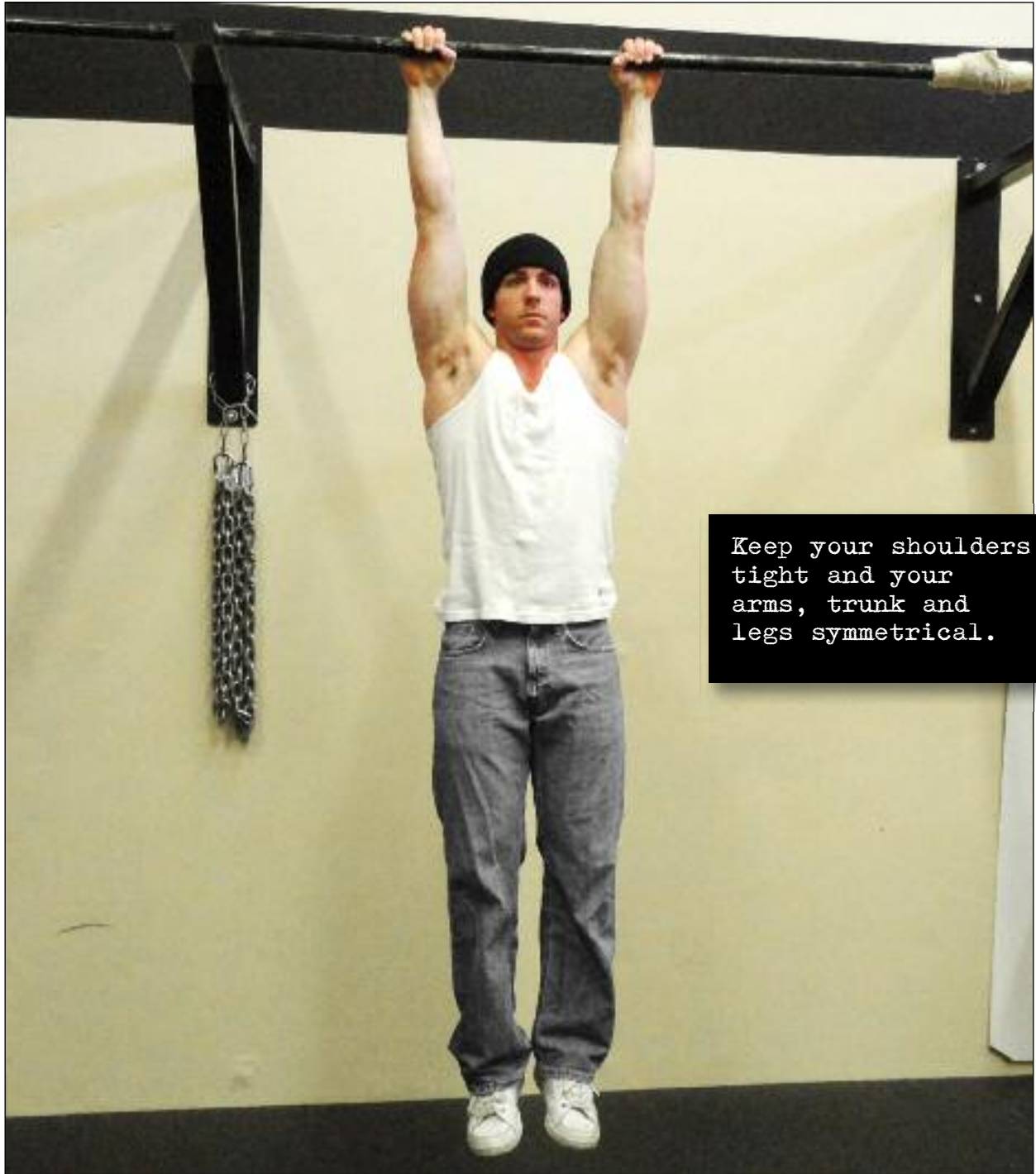
Jump up and grab an overhead bar with both hands. Use an overhand, shoulder-width grip, and make certain that your feet are clear of the floor. Keep your shoulders tight and your arms, trunk and legs symmetrical.

## Exercise X-Ray

*Bar hangs* are a classic grip exercise. They continue on from where *horizontal hangs* leave off, making the athlete hold the full bodyweight with the fingers. They also increase shoulder strength and flexibility, conditioning the trainee for more intense hanging work.

### Training Goals

- Beginner standard: 1 x 10 seconds
- Progression standard: 4 x 1 minute



Keep your shoulders tight and your arms, trunk and legs symmetrical.



## UNEVEN HANG

### Performance

Loop a towel around an overhead bar. Jump up and grab the bar with an overhand grip, then firmly grip the towel with your other hand. Try to distribute your weight evenly through both hands. Your hands should be about shoulder-width, your shoulders tight and your body symmetrical.

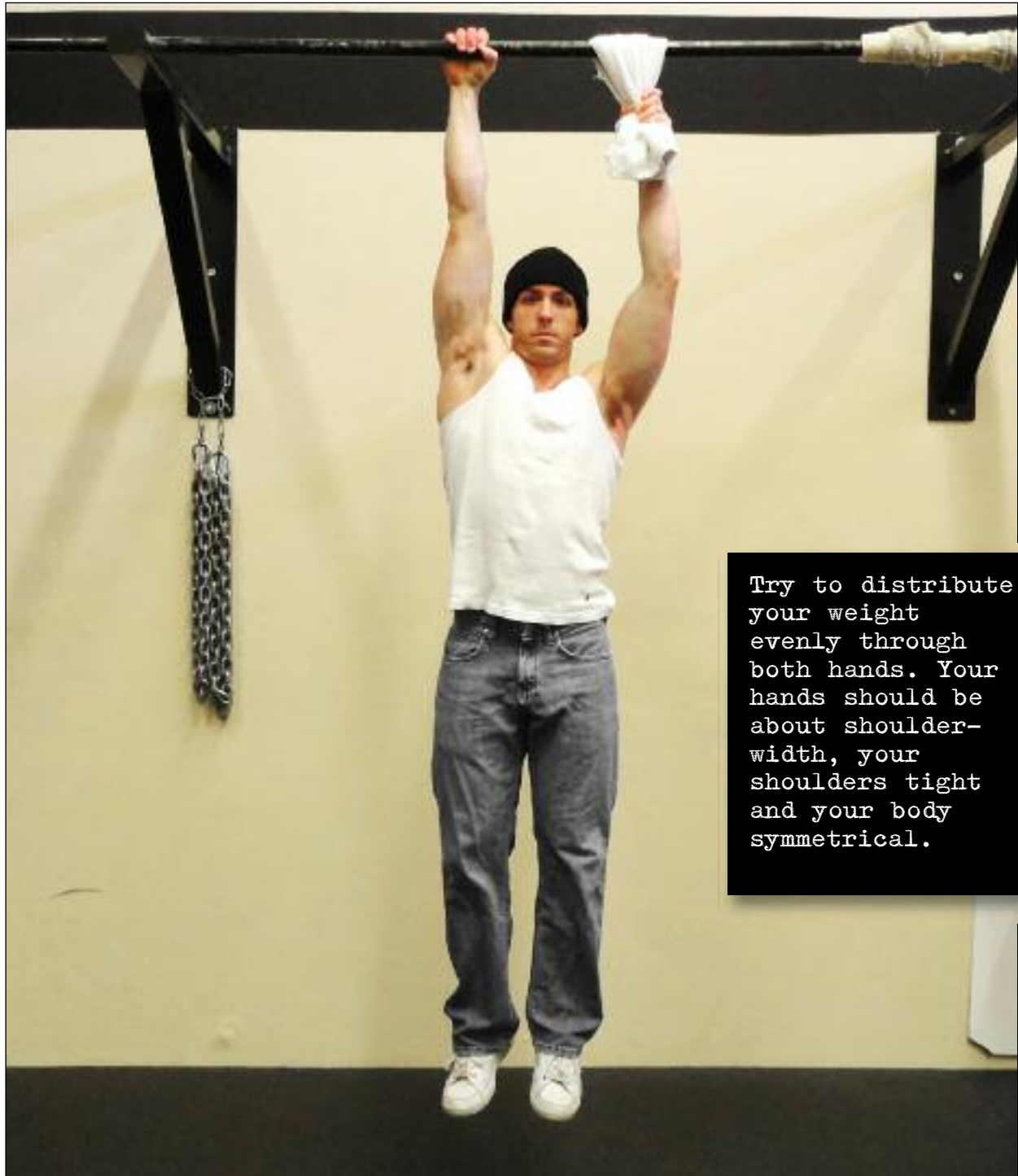
### Exercise X-Ray

Once an athlete is comfortable with regular *bar hangs* for the *progression standard*, it's time to start adding some towel work to begin conditioning the thumbs. *Uneven hangs* allow you to start towel gripping without strain.

#### Training Goals

- |                         |                |              |
|-------------------------|----------------|--------------|
| • Beginner standard:    | 1 x 10 seconds | (both sides) |
| • Progression standard: | 3 x 1 minute   | (both sides) |





Try to distribute your weight evenly through both hands. Your hands should be about shoulder-width, your shoulders tight and your body symmetrical.

## HANG SERIES PROGRESSION CHART

### STEP ONE

### HORIZONTAL HANG

Pages 20-21

**WORK UP TO:**  
**30 SECONDS**  
**x 4 SETS**

Then Begin  
Step Two

### STEP TWO

### BAR HANG

Pages 22-23

**WORK UP TO:**  
**1 MINUTE**  
**x 4 SETS**

Then Begin  
Step Three

### STEP THREE

### UNEVEN HANG

Pages 24-25

**WORK UP TO:**  
**1 MINUTE**  
**x 3 SETS**

Then Begin  
Step Four

### STEP FOUR

### ONE-ARM BAR HANG

Pages 26-27

**WORK UP TO:**  
**1 MINUTE**  
**x 3 SETS**

Then Begin  
Step Five

## 5: FINGERTIP PUSHUPS

# KEEPING HAND STRENGTH BALANCED

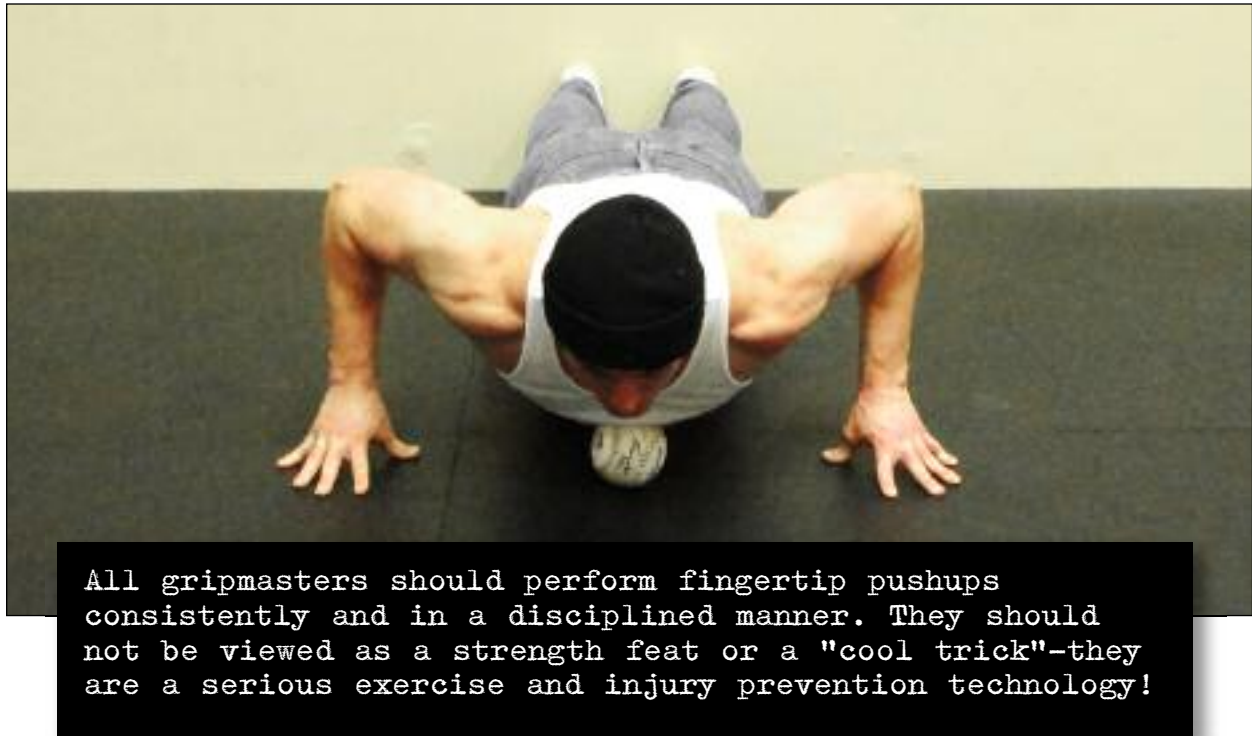
**I**n chapter two, I told you that you needed only *two* basic exercises to work your hands and forearms to the max. The first—and most important—exercise was *hang gripping*. If you’ve read up to this point, you are now pretty much an expert on the theory behind hang gripping; everything from the basic progressions, to advanced work like finger holds and explosive gripping. Now it’s time for the second exercise, another classic in the bodyweight armory: *fingertip pushups*.

### Working the opposites

The majority of lower arm muscles work by “remote control”—via the forearm muscles—to make the fingers grip. The bulk of the forearm (and palm) consists of finger *flexor* (gripping) muscles for evolutionary reasons—humans need a strong grip to hold their own bodyweight during *brachiation*. Very few non-primates have what you could call a strong grip. Hell, very few animals can “grip” with the upper extremities at all—at least in the sense that we are using the word. For this reason, any hand/forearm routine should be based around gripping exercises. The techniques already demonstrated in this chapter will give you the strongest grip—and biggest forearms—that your genetic potential will allow. But building superhuman gripping muscles without simultaneously strengthening the antagonistic muscles is asking for trouble.

There are several reasons why you should balance out a grip-based forearm program with some work for the *extensors* (the muscles which straighten the fingers). The first reason is completeness. Your hands are meant to *open* as well as *close*. If you want strong hands, you should train them open, not just closed (as in a grip). This works not only the extensors, but also all the small,





All gripmasters should perform fingertip pushups consistently and in a disciplined manner. They should not be viewed as a strength feat or a "cool trick"—they are a serious exercise and injury prevention technology!

neglected tissues and tendons on the backs of the hands and around the knuckles. Another reason has to do with maximizing potential. Never forget that the muscular system is a balanced entity. If you train one side of a limb without training the opposite side, the side you are training can never truly reach its maximum potential. If any machine has a weak link, the entire capacity of the machine is affected negatively. Guys who only train their finger flexors (by grip work) and neglect the extensors will, ironically, never have a grip as strong as a man whose hands are developed on both sides.

But perhaps the biggest reason to balance out grip work with extensor work is *injury prevention*—what the kids today call “prehab”. Working just one side of your forearms will make your strength unsymmetrical and give you greater potential for injury. Having a hugely developed grip when the back of your hand is weak is a bit like driving a car that’s made half from steel, half from timber. When you put your foot to the floor, the thing will tear itself apart. The weaker half just can’t keep up with the stronger half. This is what an unbalanced muscular system is like. It’s a recipe for a constant stream of injuries.

There are numerous devices (rubber bands, cables and machines) designed to work the open hands, and most of them are complete crap. Nothing built by man has ever improved on the ancient classic *fingertip pushup*. Fingertip pushups force an athlete to keep the hands open and fingers extended in a natural position under high levels of fluctuating pressure. This not only protects and strengthens the connective tissues, it also increases hand power very efficiently. Fingertip pushups are easy to learn, they can be done progressively, and they require zero equipment.

## CORRECT POSITIONING

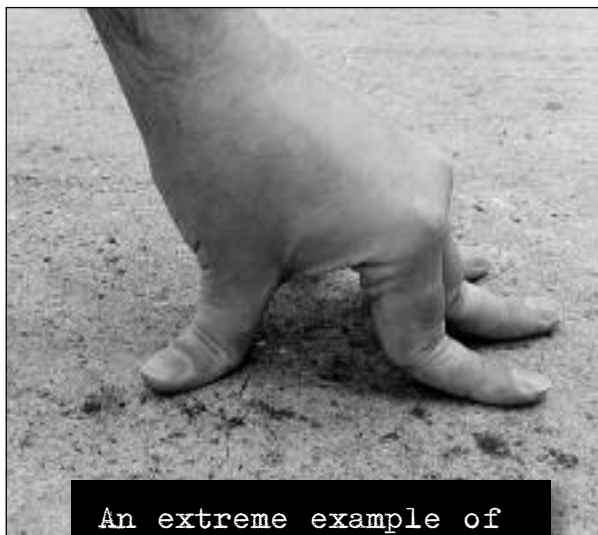
- “Fingertip” pushups are a misnomer. Press on the pads of your fingers, not the tips.
- Keep force flowing through the fingers, thumbs, and also the wrists: your entire lower arm should be a locked unit.
- Spread your fingers to distribute your weight evenly.
- Your thumb should also be straight or slightly arched back, and placed somewhere behind your second finger.
- “Set” your fingers with high tension by pressing hard into the floor. They shouldn’t move or bend during the set.



## The Art of the Empty Hand

Fingertip pushups balance the hands by thoroughly working all the “open hand” muscles and tendons that “closed hand” grip work passes by. But you need to be careful from the get-go. In particular, you need to pay attention to finger extension.

During your fingertip pushups, you may notice some slight bending of your fingers. This is natural, and will vary for everybody. But you should still press *hard* through the pads of your fingers—on each and every rep—with the goal in mind of *keeping your fingers as straight as possible*. Remember, it's this straight-finger position that gives you the results you are training for; not how difficult the type of pushup is, or how many reps you can do. Whatever you do, don't allow your fingers to *bow*.



An extreme example of hypermobile "bowing".



This position works the muscles and tendons much better.

Bowing your fingers may make the exercise feel like less effort, but that's only because the finger *joints* are taking your weight—it's not passing through the *muscles*. Not only is this bad for the finger and thumb joints, it also robs the muscles and tendons of the work they need to get stronger.

Some people have a helluva time stopping their thumbs and fingers from bowing, particularly those with real flexible (or even *hypermobile*) hands. For those of you who are struggling, bodyweight legend Brad Johnson has come up with the solution—*spider-ups*. I won't include the drill here, because Pavel Tsatsouline has already outlined it better than I ever could in section eight of *Beyond Bodybuilding*. (For what it's worth, that section is a *killer* treasure chest of advanced bodyweight techniques. I don't get paid a cent for saying this, but if you are serious about your calisthenics, that's a book you need to get your paws on. I'm not kidding.)

## Fingertip pushups: philosophy in a nutshell

There are plenty of different ways to approach fingertip pushup work. I've found during my own training that it's best to perform this exercise *before* your hanging grip work. The fingers are fairly delicate structures compared to the rest of the body, and training grip exhausts the hands—I prefer to have my fingers reasonably fresh for fingertip pushups, so the muscles are still good and strong, for safety. Doing fingertip pushups before your grip work also seems to improve performance on the hangs. It focuses the mind and acts as a neurological warm up for the lower arms.

I also like to keep my sets and reps fairly low. Ten to fifteen reps on a warm up set is fine, but for your work sets five reps should be your maximum, and anything over two serious sets is a waste of time and energy. Remember, fingertip pushups are about benefiting from the *extended finger position* more than the *pushup movement*—high reps on this exercise will only drain your chest, shoulders and arms and compromise your regular pushup workouts. Besides, you're not looking to add mass or stamina to the extensor tendons and muscles; this is all about balancing strength. So let's make this a strength exercise.

Your hands work hard during pullups, hanging leg raises, and even get activity during exercises like pushups and bridges. If you add hard grip work on top of this, that's a hefty old workload for small areas like the phalanges (*finger bones*) to handle. So don't do what a lot of trainees do and over-train your hands by working fingertip pushups every day. A short, focused, progressive session performed twice per week beats the hell out of extended daily hand workouts that go nowhere fast and irritate the tendons. (If you're a new fish, pressed for time, or you work with your hands frequently, just one fingertip pushup workout a week is also an option.)

Your fingers *want* to be strong. They weren't designed to tap at a keyboard or text bulls\*\*\* on a stupid cell phone. They were meant to be *dangerous weapons* on the hands of a caveman! Work your hands fresh, keep your reps low, keep your form perfect, keep your finger tension and your concentration high and remember to let your hands rest when they need it. Follow these rules and trust me—you'll start noticing real-life strength increases *fast*.

## Progressive strength

Just like all bodyweight training, fingertip pushups need to be done *progressively* if you want to get anywhere. You need to keep finding increasingly difficult versions of the fingertip pushup, or your strength will stagnate. As your grip strength progresses, so should your fingertip pushup work—albeit more slowly, because the extensor muscles are smaller than the grip muscles.

If you picked up a copy of the first *Convict Conditioning* book, you'll know all about the science of progressive pushups. In chapter five I laid out the perfect prison-based progressive pushup series. I'd advise all athletes new to fingertip pushups to use this ten step pushup series as a template for their fingertip pushup work. You begin at the beginning—doing fingertip pushups



against a wall—then move, step by step, to harder variations like the regular fingertip pushup. This gradual progress not only ensures consistent strength gain, it also allows the joints and soft tissues to adapt at the same speed as the surrounding muscles. This is a particularly important point when it comes to training the fingers, which are small and potentially prone to injury. It also allows newer (or heavier) athletes a chance to begin training if they can't do regular fingertip pushups just yet. For those athletes who wish to maximize their fingertip strength, the series will eventually lead you to the ability to perform *one-arm fingertip pushups*. Do them right, and your fingers and thumbs will be more like solid titanium piping than the flimsy, helpless digits most modern men have.

## READY FOR ACTION

Never launch into fingertip pushups “cold”. You want a healthy supply of hot blood circulating in your fingers, wrists and forearms before fingertip pushups. Here are some warm up tactics I've found helpful:

1. It's a great idea to perform fingertip pushups *after* another upper-body exercise (maybe pullups) so your lower arms have already had some work.
2. From there, do some freestyle shoulder, elbow and wrist circling (for a minute or so) to get the fluids in the cartilage moving in these joints.
3. Before you perform even one fingertip pushup, amplify this warm up by doing *eagle claws*. Form your hands into tight fists, and gradually open your fingers/thumbs joint-by-joint, slowly and deliberately and under maximum isometric tension. Once your (trembling!) hands are stretched open to the max, reverse the process back into a hard fist. That's one rep. Give yourself two sets of ten reps, shaking your hands loose after each set.



4. Finally, always perform one set of easy fingertip pushups before you get to your “work” sets. Choose an exercise lower down the series than the point you've reached. One set of 5-10 reps will activate your nervous system and tell your finger muscles and tendons that trouble's a-comin'. From here on in, you're ready for the real work.



One-arm fingertip pushups are only possible when you have paid your dues strengthening your finger joints and connective tissues.

I'm not going to take up space in this book repeating all the technical instructions for each step of the pushup series, but I've summarized the steps in a simple table (see below). This will get you started. If you need more details on general pushup form, refer to the first book.

## FINGERTIP PUSHUP SERIES

- |                                 |   |
|---------------------------------|---|
| 1. WALL FINGERTIP PUSHUPS:      | Perform your pushups standing, with your fingers against a wall.  |
| 2. INCLINE FINGERTIP PUSHUPS:   | Perform your pushups while leaning diagonally, fingers on a desk/table.   |
| 3. KNEELING FINGERTIP PUSHUPS:  | Perform your pushups while kneeling, your fingers on the floor.   |
| 4. HALF FINGERTIP PUSHUPS:      | Perform regular fingertip pushups, but only go halfway down.  |
| 5. FULL FINGERTIP PUSHUPS:      | Just like classic full pushups, but on the fingers instead of the palms.  |
| 6. CLOSE FINGERTIP PUSHUPS:     | Perform <i>full fingertip pushups</i> , but with the hands close together.  |
| 7. UNEVEN FINGERTIP PUSHUPS:    | Perform pushups with one palm on a basketball below you, and the fingers of the other hand on the floor.  |
| 8. ½ ONE-ARM FINGERTIP PUSHUPS: | Perform <i>one-arm fingertip pushups</i> , but only go halfway down.  |
| 9. LEVER FINGERTIP PUSHUPS:     | Perform pushups with one palm on a basketball out to your side, and the fingers of the other hand on the floor.   |
| 10. ONE-ARM FINGERTIP PUSHUPS:  | Perform your fingertip pushups with one arm behind your back. (It's okay to spread your feet and keep your working arm out to the side here: keeping your feet together will work the shoulders harder, not the fingers.) |

## 7: LATERAL CHAIN TRAINING

# CAPTURING THE FLAG

**S**eems like everyone these days wants to train “obliques”. Those cord-like muscles running up the sides of the abdomen are the subject of some kind of gold rush—at least if you buy into the fitness media. It’s impossible to pick up a magazine, skim a training book or watch an ab-gadget infomercial without being beaten around the head with the term *obliques*. It’s like some kind of ab-training buzzword...like a cake just ain’t complete without frosting, your abs aren’t complete until you’ve worked those obliques.

If you’re anything like me, you find this excessive focus on developing such a minor body part in isolation for purely aesthetic reasons pretty sickening. It reminds us of the *narcissism* of our species; plus our amazing capacity to waste precious time and energy on insignificant crap. And if the idea itself isn’t bad enough, checking out modern training methods for working the obliques will surely make you want to make you want to hurl or put a gun to your skull. The bulk of techniques applied by coaches and personal trainers consist of *side crunches*, *twisting crunches*, *side cable crunches* and similar silly garbage.

This group of popular techniques are both misguided and ineffective. They are *misguided*, because they attempt to train a small muscle with *isolation* movements, when that muscle evolved to function as a link in a larger chain. They are *ineffective* because movements like the crunch aren’t *strength exercises*—they are *low-resistance tension exercises*. They make it *feel* like you’re working, while you are actually producing zero results. (Stop and “tense” your quads for three sets of twenty reps, three times a week. Will they get any bigger? Nope. Any stronger? Nope. It kinda *feels* like work, but your quads won’t actually change at all, unless you actually bend those knees and start squatting.)

If you *really* want to strengthen and harden your obliques, you need to work them following the same four tried-and-true principles you would use to effectively work any muscle group. You need to:

- Use bodyweight as resistance
- Apply techniques which integrate the body as a total unit
- Work hard
- Keep moving on to progressively tougher techniques

## Where to train?

Before you get going on the clutch flag, you need to find a vertical base to train on. Ideally, you need a sturdy, smooth cylinder of a regular thickness. As for “how thick?”, I’d say at least the diameter of your palm, although even thicker is usually easier to hold. Here are some ideas:

- Light poles
- Signposts
- House beams
- Slim pillars
- Smaller trees
- Park equipment (pullup columns, etc.)

These objects are all around us—they’re just invisible most of the time, because we’re not looking for them. If you want to get good at the flags, you need to think like a parkour athlete and start viewing everyday architecture in a new way. You’ll soon discover that, in fact, there are training tools all around you. Ironically, the one place you’re not likely to find a good base for clutch exercises is in the *gym*. This is no bad thing. Getting your ass away from the gym is probably the number one thing you can do to start kicking your gains up a notch.

Whatever vertical base you choose, make sure it is stable and strong enough to take your weight, and check that it has no shiver or jagged edges to catch on. You’re my buddy, and I don’t want you hurting yourself. (See how I got your back? Next, I’ll set you up with my sister...)

## Clutch flag training concepts

Before we get to the clutch flag progressions, I want you to review a few training ideas first. These will help you advance more efficiently.

- **Hold it:** The clutch flag works better as a static, isometric technique than an isotonic, moving technique (a “hold” as opposed to a “move” as we said in prison). You pop up into the position shown as best you can, then *hold*. If you’re used to moving calisthenics, be aware that this change of pace requires a different psychology. The hold is brief and the set up is technical, with less room for error than is true for most moving sets. Think *focus* and *awareness*.
- **Holistic strength:** You can learn to perform flag holds as part of any training routine, and it will strengthen your lateral chain and boost your ability to use your body as an integrated unit. But results will come faster if you are already training in the Big Six exercises I described in *Convict Conditioning*. Not only will the basic calisthenics moves teach you better coordination skills, they will also increase your posterior and anterior chain strength, and this will really give you a head start if you are looking to master the flag.

- **Skipping steps:** In this tutorial, I've included an eight step series of progressions for the clutch flag. I like giving multiple progressions, because it allows for plenty of wiggle room. It also helps athletes visualize the path to success, something that's *crucial* for fostering self-belief and motivation. But remember, there's nothing magic about the number eight. It's great to experiment with every step and see how useful it is, but not every athlete will need all eight steps. If you can handle a step easily (holding it for at least ten seconds) and the next step is within your power then feel free to move on up to the next step. (This applies more to isometric holds like the flag than it does to regular exercises like the Big Six.)

For some helpful rules of thumb on how to program clutch flags into your current training, check out the table below.

## How To PROGRESS

### HOW LONG?

If you are going to use progressions on holds like the clutch flag, the progression standard can be flexible. For most stages a hold of **ten seconds** is about right. Once you can hold the position shown (perfectly) for that long, try the next step.

### HOW MUCH?

When you go to practise the flag, hold your best position until it starts to drop, or deteriorate. Then take a brief break (a couple minutes) and try again. Do this **five or six times** each session.

### HOW OFTEN?

Flag training works your muscles hard, and can leave you sore for days. Training can be done on **three non-consecutive days per week**. If you are in great shape and motivated to master the flag, alternate day training is an option. Never train while still sore from last time, though—it's pointless.

Now you know the score. Hopefully you've got some ideas about *where* to train; and you now know *how* to program clutch flag workouts. But before you can start progressing through the steps I'll show you, you have to master the most fundamental element of this type of flag—the best technique for holding onto the base. That's up next.

Ready for a side-waist designed by Ferrari and built by Smith & Wesson? On to the training.



# The basic clutch hold

Before I show you the progressions, let's look at the most basic element of the clutch flag—the *clutch hold*. There are four basic steps to getting this:

1. Approach your vertical base (whether a column, pole, post, beam or whatever). With your right arm extended, place your armpit/upper lat firmly into the base. This will help give you your initial positioning.



2. Curl your right arm back and round the base, bending the elbow and placing your hand firmly on the base. Your index finger should point down, but the other fingers can hug the base if it's the right shape for that. However you place your fingers, the palm-heel should be solidly against the base.



3. Place your left hand against the base. It should be at approximately hip level, with the elbow bent. Push really hard against the base, with as much tension as you can generate. This will be the hand that stops you falling later on, so it *has* to be tight.



4. Position yourself back slightly by taking a mini-step back and/or bending at the waist. This is to give you space to position your left elbow firmly into your waist, a little above the left hip. At this point, your left forearm should be close to diagonal. Now brace everything for take-off!



There you go—this is the basic clutch hold you’ll need for all the following steps. (For a clutch hold on the opposite side, just substitute “left” for “right” and so on.) Over time you’ll find that these four separate motions become one fluid movement. As you progress, you’ll also find your hold technique varies slightly from what I’ve laid out. That’s fine—diff’rent strokes, baby.





# CLUTCH HANG

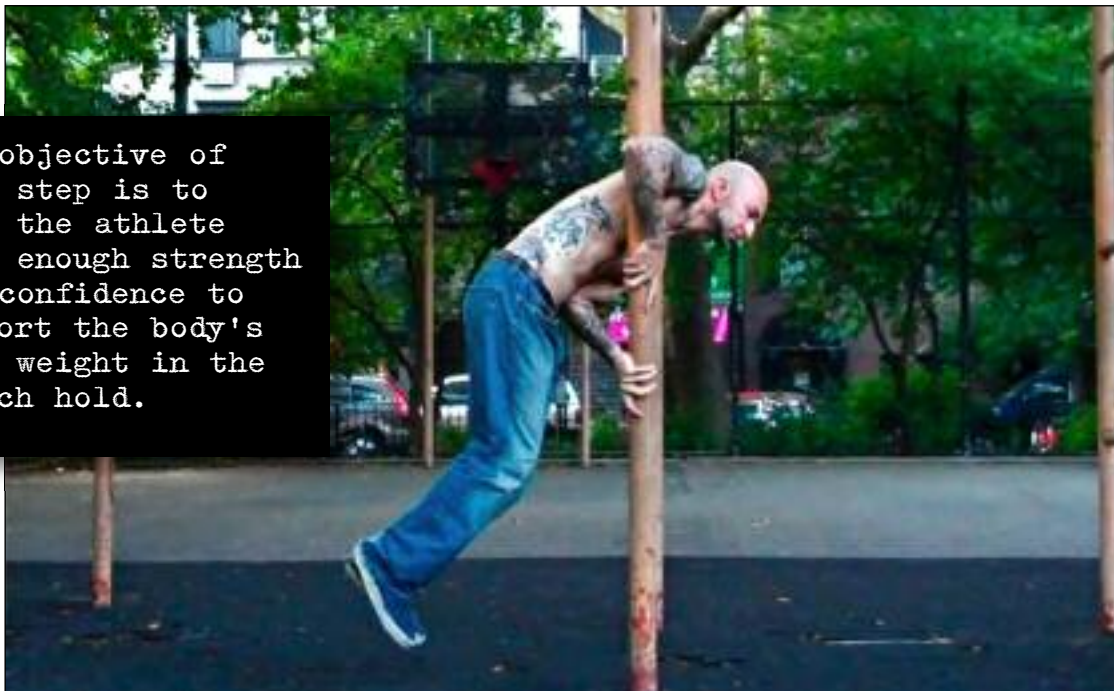
## OVERVIEW

Approach your vertical base, and begin to get into the basic *clutch hold* (pages 75 to 77). Hug the base strongly, pushing in as hard as you can with your hands, and using the elbow in your waist like a lever. Once you feel you've generated enough tension, slowly lift your feet off the floor—one at a time at first. Don't try to lift your legs out to the side just yet. Relax your lower body, and let your legs hang straight down, with your knees bent. The objective of this step is to help the athlete gain enough strength and confidence to support the body's full weight in the clutch hold.

## TIPS

Lift your feet off the ground by *bending* your knees and lifting your feet slightly behind you, rather than by *raising* your knees up at the hips. This first step is meant to be an upper body exercise, not an abdominal exercise.

The objective of this step is to help the athlete gain enough strength and confidence to support the body's full weight in the clutch hold.





# DIAGONAL SPLIT CLUTCH

## OVERVIEW

Approach your vertical base, and get into the basic *clutch hold* (pages 75 to 77). Your elbow should be securely positioned in your waist above the hip. This elbow position will push your hips off-center and out to the side a little. From here, hop out to the side as you bend the knee of your right leg and draw it up as high as possible. Simultaneously, straighten out your lower leg. Try to control the alignment of your body, so that your trunk and lower leg form a diagonal line. Hold the position, breathing normally.

## TIPS

Keeping your upper leg in a tuck position makes aligning your body diagonally easier, but some will find that the body still droops. This is entirely due to weakness in the lateral chain—most people, even athletes, aren't used to testing their lateral chain strength. Keep trying.



Try to control the alignment of your body, so that your trunk and lower leg form a diagonal line. Hold the position, breathing normally.



**CLUTCH FLAG SERIES PROGRESSION CHART****STEP  
ONE****CLUTCH  
HANG**

Page 78

**WORK UP TO:  
10 SECOND  
HOLD**Then Begin  
Step Two**STEP  
TWO****DIAGONAL  
SPLIT  
CLUTCH**

Page 79

**WORK UP TO:  
10 SECOND  
HOLD**Then Begin  
Step Three**STEP  
THREE****DIAGONAL  
'TUCK  
CLUTCH**

Page 80

**WORK UP TO:  
10 SECOND  
HOLD**Then Begin  
Step Four**STEP  
FOUR****DIAGONAL  
CLUTCH**

Page 81

**WORK UP TO:  
10 SECOND  
HOLD**Then Begin  
Step Five

## 10: BULLDOG NECK

# BULLETPROOF YOUR WEAKEST LINK

**N**o minor muscle group is as important and rewarding to train as the neck. A thick, strong-looking neck gives off an immediate aura of power. When we want to check out how muscular another guy is, we instinctively look towards his neck to tell us. Sheer body size can be misleading—sometimes skinny guys can look bulky in clothing, particularly if they have a boxy frame. But a powerful, bulldog neck rarely lies. Convicts who are proud of their impressive necks will often get a little tattoo on their throat or to the side of the neck, to draw attention to the area. Besides, the neck is the only muscular body part that's on public display all year round. In a shirt or sweater forearms can be completely covered, but the neck still shows above the collar. Given this, it's always amazed me that bodybuilders hardly ever include neck training in their programs. This body part is usually ignored altogether.

A sturdy, well-trained neck has greater benefits than just looking intimidating. The neck forms the cervical portion of the upper spine, and if the muscles supporting these smaller vertebrae are good and strong an athlete will have a reduced chance of injury to this crucial area. The cervical spine supports the skull and the brain, and a robust neck acts as a shock absorber to the head, protecting the brain from concussion (or worse) during trauma. This is why all boxers train their necks hard; powerful neck muscles will keep the head stable when it gets punched, and this stops the brain rattling around inside. Fight commentators often talk about a “glass jaw”, but the chin and jaw actually have little to do in determining your ability to take a heavy punch and come back smiling. Neck power is far more important. This is another good reason to invest some time in neck training if you're in the joint. Should you be blindsided with a haymaker to the jaw, your brain will thank you.

Unfortunately the knowledge of how to train your neck properly is a dying art, restricted to a few special circles. No personal trainer can teach you how to train this area productively. Bodybuilding writers—at a loss for what to suggest—usually recommend silly high-rep exercises

while holding tiny weights to your head. These pitiful techniques will do zero to produce a powerful neck. In a few gyms you might see a neck harness to attach some decent weights to, but strapping heavy weights around your head area isn't always a great idea; neck harnesses are notorious for causing headaches and nagging neck pain. Neck training machines do exist, but most of them look like they were designed to decapitate you rather than build a healthy upper spine. Steer well clear of them.

## The best necks in the business

I was lucky enough to learn my neck training skills from a real expert—not a bodybuilder or even a boxer, but a *wrestler*. The man in question was a damn good amateur grappler in college before his lifestyle led him down the wrong path. He wound up in Angola Pen, and it was there that I was lucky enough to spend some time with him. Nobody understands neck training like wrestlers, and it shows. If you ever get the chance to see a really good wrestler—either a freestyle wrestler or Greco-Roman style—you'll notice that they inevitably have thick, brawny necks that look like they've been carved out of granite. The Olympic Freestyle gold medalist Kurt Angle has had his neck measured at over twenty inches! In the late nineties, Angle (who is all of five eleven) became a pro with the WWE, and was often dwarfed by the hulking athletes he starred with. He appeared alongside guys with gigantic chests, tree-trunk thighs and arms like beer kegs, but nobody who stepped in the ring with him had a neck anywhere near as impressive as he did. Years of wrestling gave him this elite level of development.

There is a good reason for the incredible neck development wrestlers possess. In freestyle wrestling, your arms are usually taken up in countering your opponent during close grappling, and because of this the head has to act as a third arm to position the opponent's head and torso. This requires phenomenal neck strength. Good wrestlers automatically tie up each other's limbs, and as a result many throws have to be done holding onto the torso, and landing like this sends phenomenal forces through the neck and upper spine. If you have ever seen a *suplex*, you'll know what I mean; you basically land on your upper shoulders and neck, with the weight of your opponent slamming right on top of you. Without a neck forged from steel, such a throw would be unthinkable—it could even kill you. But wrestlers can do this dozens of times during a match without the slightest problem. This is because the art of neck training has survived in the curricula of wrestling schools.

## Secret weapons

What is the “secret weapon” of a serious wrestler's neck training armory? Well, like all the best exercises, it doesn't require special equipment like machines or weights. Just the human body moving as nature intended. The ultimate program consists of two fairly simple calisthenics exercises—the *wrestler's bridge* and the *front bridge*.

The famous "God of Wrestling" Karl Gotch, performs a perfect suplex, where the opponent is thrown backwards from standing. His mastery of the belly-to-back suplex was so great it became known as the "German" suplex in his honor. You can see the importance of the neck bridge in training to survive this move. Gotch himself was a major proponent of calisthenics, and believed that weight-training made wrestlers slower.



These two techniques are all you'll ever need to build an awesome, functional neck: front, back and sides. The exercises themselves—like the art of wrestling itself—go all the way back to ancient Greece and Rome. These techniques have dropped out of sight for the general training world, but because they are so powerful and effective, they have retained their value for those athletes who have needed them the most—wrestlers. If you look back over descriptions of how grapplers in the West have trained over the centuries, it's clear that neck bridges have been practiced in an unbroken line of training going back *thousands* of years. No neck training machine on the market today will still be around in a couple of *dozen* years, let alone a couple of *thousand*! Good riddance.

## Neck specialization-health benefits

Neck training isn't necessarily essential. As long as you practice the Big Six—particularly the bridging series—your neck will get a fine workout and remain healthy and strong for life. But if you are involved in disciplines like combat sports or football that require an ultra-strong upper spine—or if you just want a cool neck that looks like pythons are crawling out of your collar—give the workout in this chapter a try. The benefits easily outweigh the investment in time and energy. In fact, the benefits of all the neck bridging techniques described in this chapter are enormous.



The "Manassa Mauler" Jack Dempsey didn't have huge biceps or shredded abs like modern fighters, but he did build a muscular neck and upper back because of his dedication to neck bridges. He believed that the exercise-combined with chewing wood, to build up his jaw-made him un-knockoutable. In over eighty fights he was KO'd only once, and the smart money says that fight was a fix.



Aside from the athletic payback, having a strong neck will save you a lot of pain. Six out of ten people experience neck problems of some kind. Is it any wonder? Our necks evolved while we were hunter-gatherers, running through the forests as we constantly looked around for predators or prey. This was a great neck workout. These days the average worker slouches over a desk, a production line or a laptop. They get home exhausted and fall down on the couch staring at the tube for a few more hours. In all these activities, the gaze is fixed in one direction, and as a result the neck is voluntarily paralyzed. It's inevitable that the pillar of muscles supporting the skull become atrophied and stiff. Combine this with the fact that the neck automatically accumulates tension when we are stressed—a throwback to the days when we had to hunch for combat when trouble hit—and the end result is chronic and acute neck and upper back pain. A genuine pain in the neck.

Mastering neck bridges will help virtually every neck problem and will cure the vast majority of them outright. A strong, balanced neck is more resilient to repetitive strain; neck calisthenics radically improve the circulation, easing old injuries and eliminating aches and pains. Practicing these exercises every so often will instantly remove any stress-based tension in the neck and shoulders that has been subconsciously building up. When your neck is strong, your posture is automatically improved, and you look and feel better as a result.

## The old school neck program

Neck bridging techniques can be quite difficult, especially if you have allowed your neck to grow weak. As a result, it may take some time to be able to perform them properly. The *wrestler's bridge* requires some basic spinal power to even attempt—you need to be able to do basic back bridging as a prerequisite. If you lack the strength to perform back bridges, refer to the first *Convict Conditioning* book for a complete course of instruction. The *front bridge* has its own difficulties, largely because it requires a moderate degree of flexibility. Don't worry about these issues at this stage. First I'll introduce you to the techniques you'll be using to build your neck, starting with wrestler's bridges, followed by front bridges. Then, I'll show you exactly how to progress in your neck training. I'll finish the chapter with some important neck training ideas to keep you on the straight and narrow.

Okay, enough talk. If I haven't converted you yet, I probably never will. Let's move on to a description of the exercises you'll be using.

# WRESTLER'S BRIDGES

## PRELIMINARY VERSION

*This is the preliminary version of the wrestler's bridge. Because the arms help with the movement, the exercise requires significantly less power than full wrestler's bridges (page 119).*

### **Performance:**

I. Lie on your back with the soles of your feet on the floor, and your palms on either side of your head with the fingers pointing towards the feet. Now push the body off the floor until your hips are high and your trunk and limbs form an arch. No part of your body save your feet and hands should be in contact with the floor. This position is called a *bridge hold*.

II. Keeping your trunk and legs braced, lower yourself slowly by bending your elbows, until the crown of your head makes contact with the floor. It will help to rest your head on a towel or slim pillow. This is the start position (image 1).



III. Keeping your palms and skull in contact with the floor, slowly bend your head forwards. This will lower your upper body slightly. At no point should your head come away from the floor. When your neck and upper shoulders rest on the floor, stop descending. This is the finish position (image 2).

IV. Slowly and smoothly press back up to the start position using the combined power of your arms and neck. Pause for a moment, and repeat.



*Continued next page.*

# WRESTLER'S BRIDGES

## FULL VERSION

*This is the hard version of the wrestler's bridge. Because the arms are not involved, the muscles of the neck alone are required to move the torso. This forces them to grow rapidly in size and strength.*

### **Performance:**

I. Lie on your back with the soles of your feet on the floor, and your palms on either side of your head with the fingers pointing towards the feet. Now push the body off the floor until your hips are high and your trunk and limbs form an arch. No part of your body save your feet and hands should be in contact with the floor. This position is called a *bridge hold*.

II. Keeping your trunk and legs braced, lower yourself slowly by bending your elbows, until the crown of your head makes contact with the floor. Using a towel or slim pillow will help cushion

your head. Gradually take the pressure off your palms, until only the crown of your head and your feet are supporting the body. Cross the arms upon your chest or rest the palms on the stomach. This is the start position (image 3).

III. Slowly bend your head forwards. This will cause your torso to descend slightly. When your neck and upper shoulders rest on the floor, stop descending. This is the finish position (image 4).

IV. Slowly and smoothly press back up to the start using power of your neck muscles alone. Pause for a moment, and repeat.



# FRONT BRIDGES

## PRELIMINARY VERSION

*This is the preliminary version of the front bridge. Because of the kneeling position, less of the body's weight is transmitted through the neck, and the exercise can be made easier by shifting the trunk backwards and forwards using the legs. The four-way movement hits all the muscles of the front and sides of the neck. This version is much easier than the full front bridge (page 122).*

### **Performance:**

- I. Kneel on the floor with your knees wide apart.
- II. Straighten up, then bend over forwards. Place the palms on the ground, and lower the crown of your head between them. Rest your head on a towel or slim pillow to cushion your head.
- III. Take the pressure off your hands until the force of your weight is going through your knees, shins and feet, as well as the crown of your head. Place your hands behind your back to keep them out of the exercise. This is the neutral position (image 5).
- IV. Under full control, allow your head to pivot back until your nose gently makes contact with the floor (image 6).



*Continued next page.*

# FRONT BRIDGES

## PRELIMINARY VERSION cont.

### *Performance:*

V. Return to the neutral position (image 7) using the power of your frontal neck muscles, then allow your head to pivot to the right (image 8).

VI. Return to the neutral position (image 7) using the power of your lateral neck muscles, then allow your head to pivot to the left (image 9).

VII. Return to the neutral position (image 7) using the power of your lateral neck muscles. You have just completed one full repetition. Return to step IV, and repeat.





## II: CALF TRAINING

# ULTIMATE LOWER LEGS— NO MACHINES NECESSARY

**D**espite the importance of the calves, it's fair to say that convicts who train probably ignore their calves more than any other muscle group. I've even seen the neck worked more than the calves inside prison, due to the number of boxers in the joint. And this is nuts, because if any "minor" body part deserves a little extra R-E-S-P-E-C-T, it's those lower legs.

Strong calves are crucial for athleticism. Nobody can run fast, jump high, or move their body explosively without plenty of calf and foot power. The seat of the body's strength lies in the waist and hips, but for the body to work as a unit the force generated by these areas must be transmitted through the feet. Watch any strongman competition, and you'll notice that these guys all have humongous calves. Strong calves are functional. Anybody who has run out of gas and had to push their car uphill will have felt their calves burn and ache as they struggle onwards and upwards. Hundreds of thousands of people in America today suffer with ankle and foot problems—through acute injuries and chronic, nagging pain—because their calves and feet are too weak.

Calves are also vital to bodybuilders. In competition, all body parts are judged on a points system, relative to various standard poses; and the calves are visible in virtually all of those poses. In his autobiography *Arnold: Education of a Bodybuilder*, Arnold Schwarzenegger emphasized the importance of calves to the whole "look" of the lower body. He pointed out that if a guy has big thighs and small calves, most people would say what bad legs he had; but if an individual has great calves and slim thighs, you'd probably think how impressive their legs were. This is true, for reasons of geometric contrast; since the calves are at the end of the legs, extra size there gives the illusion of the whole leg being more massive, and more aesthetically shaped. So whether it's pure athleticism, health or aesthetic reasons you train for, extra calf training may have big benefits to offer you.

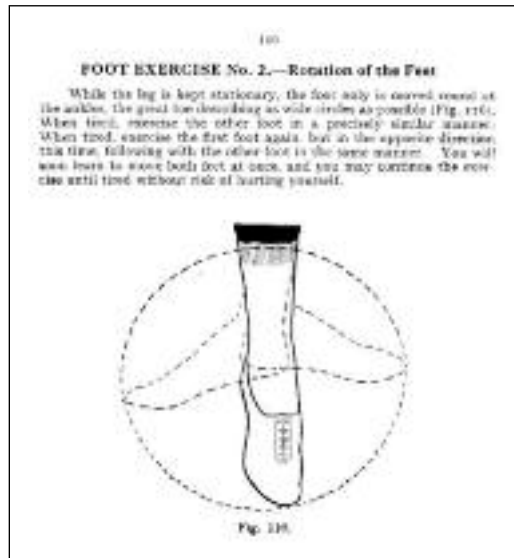
## The role of specialized calf work

Calves should get their share of training like any other body part. But they might be getting that share of training automatically. If you are working hard on your *squats*, the calves will receive their portion of work. If you are doing explosive lower body work like *sprinting*, *hill/stair sprints*, *fireman sprints* or *car pushing* your calves will be getting a lot of great muscular exercise. (See *Convict Conditioning* volume one, chapter six for instruction and information on these great exercises.) Because the calves play such a central role in lower body training, you are already training your calves when you train your thighs. In these cases you may not need to add any specific calf work to your routine.

But there are circumstances where extra calf training might be appropriate. For example, if you have been plagued by foot, ankle or shin injuries in the past, powerful, muscular calves play a big part in protecting these areas from re-injury. This is even true in the case of knee injuries—I've spoken to football players who've blown out their ACL and swear that regular, concentrated calf training helps keep their knees stable. This isn't as unlikely as it sounds—it's a little-known fact that as well as crossing the ankles, the tendons of the calf also intersect the knees. In addition, special calf work can increase your strength levels in large compound movements like pushing or jumping, and it goes without saying that if you're embarrassed by puny lower legs when you are wearing shorts, the only solution (bar wearing long pants) is to get training your calves hard. Calf training is an interesting and rewarding aspect of calisthenics that's simple to perform and quick in results—provided you do it properly.

## The myth of machines

No muscle is more associated with machine training techniques than the calves. Most bodybuilders only ever use machines to train their calves. If you ask a personal trainer about calf work, you'll find that the majority of these "experts" only know two calf exercises; standing machine calf raises, and seated calf raises. In fact, there are *dozens* of effective exercises you can do for the lower legs, many of them better than these two exercises. Far from being the best form of calf training, machine work is actually inferior to more basic methods. The largest bodybuilding machine manufacturer in the world is *Nautilus*. But for many years, Arthur Jones—the inventor and innovator behind the company—refused to put a calf training machine on the market. He believed that no machine could ever match the simple heel raise off a block, holding a dumbbell in one hand. That should tell you something about how effective machine work is for the calves. Even the guy making money from all these machines didn't want to build a calf unit, because he was convinced it would be inferior.



The classical systems of calisthenics all included specific exercises for the feet and lower legs. In these excerpts from J.P. Muller's 1904 training manual you can see methods that are still considered "cutting edge" today. On the right, active flexibility techniques for the feet; above, circular mobility training for the ankles.

## "Tougheners" for calves

Forget about machines. You don't even need free weights to build maximum calf size. All you need is your bodyweight.

Whenever I discuss calf training with bodybuilders I am inevitably met by disbelief at this statement. They can't believe that you could use bodyweight progressively to train such a small muscle. Their confusion stems from the fact that most gym-trained guys only understand one way of getting stronger—putting more weight on a bar or machine, time after time. In fact this is the most primitive way of getting stronger. It does add strength and size, but it does so at the expense of the joints and with no benefit to the important qualities of coordination and balance.

Using bodyweight techniques to become stronger is a far superior method than just adding weight to an exercise; and despite what the current crop of personal trainers mistakenly believe, you can do this for any muscle, however small. To continue getting stronger on any exercise, all you need to understand is what my own calisthenics teacher Joe Hartigen called the "tougheners" of that exercise.

All of the convict trainees stretching back centuries understood what was meant by the idea of “tougheners”. A *toughener* is an element within the make-up of any given exercise that makes it harder. By manipulating the tougheners, you can make an exercise progressively more demanding, often over years of grueling training. These days, exercise scientists and Olympic coaches would use the term “intensity variables” instead of “tougheners”, but they mean the same thing. Old Joe wouldn’t be caught dead chewing on a phrase like “intensity variables”.

After a short while into your own calisthenics training, you’ll start to understand how the exercises work and be able to identify these tougheners in your own program. There are *three* basic tougheners for calves—three fundamentals you can play with to make the exercise harder over time. They are:

1. **Range-of-motion:** This is how far you move your heels during calf work.
2. **Bilaterality/unilaterality:** This is whether you use one leg or two.
3. **Knee flexion:** This is whether you bend your knees or keep them straight.

At a more advanced level, there are another *six* calf tougheners; *volume*, *inter-set rest*, *frequency*, *stance*, *speed of motion* and *post-failure intensity techniques*. I’ll discuss some of these later, but for now let’s look at the three basic tougheners listed above, and see where they get us.

Let’s pick the most basic calf exercise to use these tougheners on; the *standing heel raise*, often called the *calf raise* these days. In simple terms, you just press your toes down, lifting your heels off the floor and raising your body a few inches. Descend and repeat. A simple enough concept. But it’s only one exercise, right? Wrong. Let’s see how progressive we can make it using the three tougheners.

For a start we will keep things fundamental and assume just *two* ranges of motion for the calf raise; you can either lift your heels up from the floor, or you can stand on your toes on a step (or any raised surface) and lift your heels up. Using a step means that the range of motion is about double what it is when you use the floor, because the heels can descend much further, all the way to their maximum flexion determined by the suppleness of the individual (compare images 15 and 16). There are lots more potential ranges between these two extremes, but let’s stick with two to make things easy. So already we have two calf exercises:

1. Calf raises off the floor
2. Calf raises off a step

Now we consider our second toughener—bilaterality/unilaterality. In other words, on either of these exercises you can use both legs—which is obviously easier—or just one leg, which is harder. Since both the above exercises can be done with one or two legs, we now find that we actually have *four* exercises:

1. Double leg calf raises off the floor
2. Single leg calf raises off the floor
3. Double leg calf raises off a step
4. Single leg calf raises off a step

Now comes the matter of knee flexion. It's a fundamental principle of kinesiology that if you want to increase the work output of a muscle which crosses two joints, you should stretch out one of the joints while working the muscle at the other joint. The major muscle of the calf—the *gastrocnemius*—crosses two joints, the ankle and the knee. The upshot of this technical yadda is that if you really want to make your calves work hard, you need to do your calf raises with your legs totally locked at the knee. If you don't believe me, try it; stand on a step with your knees bent a little and try doing calf raises (see image 17). Fairly easy. Now lock your legs, ramrod stiff—suddenly things get significantly harder (see image 18). So using this little-known bit of sneaky anatomical knowledge, we have two more variables—bent knees and straight legs. Since the four exercises we have just listed can all be done either with bent knees or locked legs, we have doubled our exercises. Now we have eight:



15

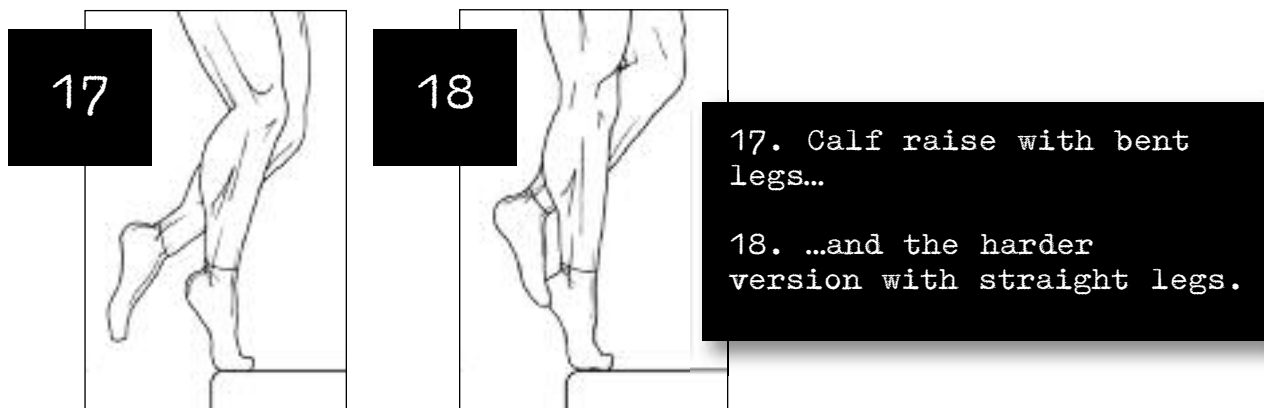
1. Double leg calf raises off the floor (bent legs)
2. Double leg calf raises off the floor (straight legs)
3. Single leg calf raises off the floor (bent leg)
4. Single leg calf raises off the floor (straight leg)
5. Double leg calf raises off a step (bent legs)
6. Double leg calf raises off a step (straight legs)
7. Single leg calf raises off a step (bent leg)
8. Single leg calf raises off a step (straight leg)



16

Calves are a good example of how a creative knowledge of a few different training nuances can really expand your exercise repertoire. Unfortunately in the modern clamor of “more weight on the bar” so many of these small nuances seem to have become lost. It's a real shame because they are *essential* to a master of old school calisthenics; using a little knowledge of the tougheners, we have gone from one exercise—calf raises—to *eight* different exercises. These exercises all present different levels of effort, so perhaps more importantly we have now created eight stages of difficulty for our body-weight-only calf program.





## A sample calf series

Let's say you want to use the above eight exercises to improve your calves. Provided you take your time and really make the most out of each exercise, milking it for every bit of development it can offer you, this workout can keep you going for years. Here's a potential timetable of progression using the exercises:

### ***STAGE 1. Double leg calf raises off the floor (bent legs)***

Start off easy. Grab hold of something, or simply place your palms against the wall for support. The feet should be about shoulder width apart. Keeping your knees slightly bent, raise your heels off the floor, lifting your entire bodyweight as you do so. Pause for a full second in the top position, before slowly allowing your heels to descend again. Don't rush and pump out reps—take your time. This is a good exercise to use to get to know your calf muscles. Start with a couple of sets of twenty. This should give you a bit of a burn in the muscles; a great place to start. Gently stretch out your calves between sets for about a minute. Add a set every week until you get to four sets of twenty. Then begin adding reps. At the very most, add five reps per set every week, but don't worry about adding less if you need to go slower. Keep a written record of your reps and build up to four sets of one-hundred. If you add five reps per set each week, you will reach this goal in sixteen weeks.

BEGINNER STANDARD:	2 x 20
PROGRESSION STANDARD:	4 x 100

## **STAGE 2. Double leg calf raises off the floor (straight legs)**

By now it's time to make the exercise a little harder on the calves. Begin the exercise again, but lock your knees completely straight. You will find that this shifts the emphasis from your ankles (the *soleus*) to the bulk of the calf higher up (the *gastrocnemius*). Drop back down to four sets of forty reps, and build up to four sets of ninety reps. Take your time in doing this. If you go fast and add five reps per set per week, you'll meet this goal in ten weeks. Continue taking a minute or so to stretch out your calves between sets.

BEGINNER STANDARD:	4 x 40
PROGRESSION STANDARD:	4 x 90

## **STAGE 3. Single leg calf raises off the floor (bent leg)**

By now your calf muscles will be more toned than ever. The tendons will be healthy and your ankles nice and strong. Time to shift to unilateral work. Lift one leg off the floor, gently linking your non-working foot behind the ankle of the working leg to keep it out of the movement. Bend the knees by a few degrees and hold onto something for support. Now perform your strict heel raises, dropping back down to two sets of thirty reps to accommodate the fact that the weight on the muscles has nearly doubled. Alternate legs. Add a set every week for two weeks (until you are doing four sets per leg) and then lowly build up your reps again at your own pace, until you reach four sets of eighty. If you add five reps per set per week, this will take you ten weeks.

BEGINNER STANDARD:	2 x 30
PROGRESSION STANDARD:	4 x 80

## **STAGE 4. Single leg calf raises off the floor (straight leg)**

Now repeat the procedure with straight legs, totally locked at the knee. You'll find that with a little bend in the knee, you can cheat slightly as you become tired by pushing through your legs on the difficult, painful final reps. When you start and finish with locked legs, this is impossible—you must use pure calf power. Stretching between sets, drop back down to four sets of thirty and build back up. By building up five reps per set per week, you'll reach your goal of four sets of seventy reps in eight weeks. If you need to go slower—if your form starts to get messy—only add a rep or two each week.

BEGINNER STANDARD:	4 x 30
PROGRESSION STANDARD:	4 x 70

### **STAGE 5. Double leg calf raises off a step (bent legs)**

By now—if you have been doing your exercises under full muscular control—your calf muscles will be much fitter and possess real stamina. It's time to increase the range of motion. Hop up onto a step. If a step isn't available you can use a cinderblock or thick piece of wood—anything high enough to allow your heels to hang down. In prison I often used law manuals. If you are going to wear shoes, wear some flimsy sneakers—thick boots will take pressure off the feet and this is not what you want; you *want* this exercise to develop the soles of your feet, toes and arches as well. (A chain is only as strong as its weakest link—so make *everything* strong!)

Famous bodybuilder and the first Mr Olympia Larry Scott used to do his calf raises barefoot, and if you can too if you find this comfortable. It really depends on the platform you are using. Again, hold onto something (like a guide rail) for support. Shuffle back so that only the balls of your feet are on the step. For this exercise, your feet should be closer together—nearly touching—to put even more pressure on the calf muscles. Bend the knees slightly, and keep them more or less bent throughout the exercise. Now, slowly descend until your heels are as low down as they will go, and pause in that position. Smoothly drive the heels up as high as they will go, until you are on tiptoes. Pause for another second, contracting the calves hard. Repeat this for twenty reps.

Now that your calves are in good shape from their training, it's a good time to step up your stretching. Instead of hopping off the step and grabbing your swollen lower legs when you complete a set, keep your heels in the lowest position, pushing them down as far as they will go. At first, this stretch will seem like torture, but persist—it will improve “supple strength” and enhance your ability to tolerate pain and perform high reps. Stretch this way for sixty seconds (or twenty breaths) and *immediately* begin your second set. Shoot for two sets of thirty reps. Add a set per week for two weeks, then begin building up your reps until you can manage four sets of sixty reps. Stretch hard after each set. If you add two reps per set each week—and this will be more than plenty at this stage—you will reach your goal in fifteen weeks.

BEGINNER STANDARD:	2 x 30
PROGRESSION STANDARD:	4 x 60

### **STAGE 6. Double leg calf raises off a step (straight legs)**

Repeat the above exercise, but with your legs entirely locked during the calf raises *as well as* during the stretching after the sets. This will really burn up those calves. The new position may mean that you gradually begin working your way fractionally backwards during the exercise. That's fine. If this ever happens during calf work just reposition yourself so that you are stable and continue. Drop to four sets of thirty and build up to four sets of fifty. Adding a couple of reps to every set each week will get you where you want to go in ten weeks. This exercise—with strict form, high reps and all the stretching—should be considered intermediate level. If you need to drop to one rep per week, even one rep every two weeks, do so. The name of the game is getting better in little chunks. As long as you can do this for an extended period, you'll get damn good. Far from screwing up improvement, slowing up often just lengthens the time you are able to make progress.

BEGINNER STANDARD:	4 x 30
PROGRESSION STANDARD:	4 x 50

### **STAGE 7. Single leg calf raises off a step (bent leg)**

Time to get those calves *really* strong. Link your non-working foot behind your working ankle, bend at the knee and perform an extremely strict calf raise. Go at least two seconds up, one second at the top, two seconds down, one second at the bottom. This will build genuine strength. Start with two sets of fifteen, stretching after the sets by pushing your heel down as far as it will go for a minute (or twenty breaths). The added proportional weight will drive your heel down even further than in the bilateral version and the stretch combined with the strict calf raises will make for a very severe workout. Alternate your legs by doing one set then stretching, immediately doing a set with the other leg, then stretching. If you can, continue with this rep range, adding another set every four weeks. This will give your calves the chance they need to really grow and get stronger, as well as allowing the Achilles tendon and ankles to properly adapt to the rigors of the unilateral work. After two months, you'll be doing four strict sets of fifteen and—provided you have worked patiently through the exercises I have laid out—it should be relatively easy. Add no more than two reps per set weekly until you reach the target of four sets of forty-five. At minimum, this will take fifteen weeks.

BEGINNER STANDARD:	2 x 15
PROGRESSION STANDARD:	4 x 45

### **STAGE 8. Single leg calf raises off a step (straight leg)**

The same exercise as given above, but with a perfectly straight working leg. You know the drill by now. The single leg calf raise off a step—with perfect form, a straight leg, a maximum stretch at the bottom and a tight contraction at the top—is one of the hardest calf exercises known. A lot of people think it's easy, but when you watch them they bend their knees and bounce, using momentum to help them from their very first rep. The key is to pause at the bottom. Don't bounce. And move smoothly; don't go faster during one portion of the rep than another. Maintain an even cadence throughout. These sound like little things, but they turn a so-so exercise into a real monster. Start with four sets of thirty (if you can) and build up by adding no more than *one rep per week* until you are doing four sets of fifty reps per leg. This will take you twenty weeks, provided you can maintain the pace. If not, go slower.

BEGINNER STANDARD: 4 x 30  
PROGRESSION STANDARD: 4 x 50

## Warm ups and rest

Calves need time to rest like any other muscle group and for strength they should be worked only once or twice a week. As usual, pay attention to your body and attend to its needs while you train. The ankles are usually a very robust joint, kept warm by carrying the body around all day, so you might never feel the need for a warm up. But if you do, just start the session with a high rep set of an easy exercise two or three steps back in the series from where you've reached. Whenever

I do calf work I do it immediately after squats, and I find that my calves are already nice and heated by then.

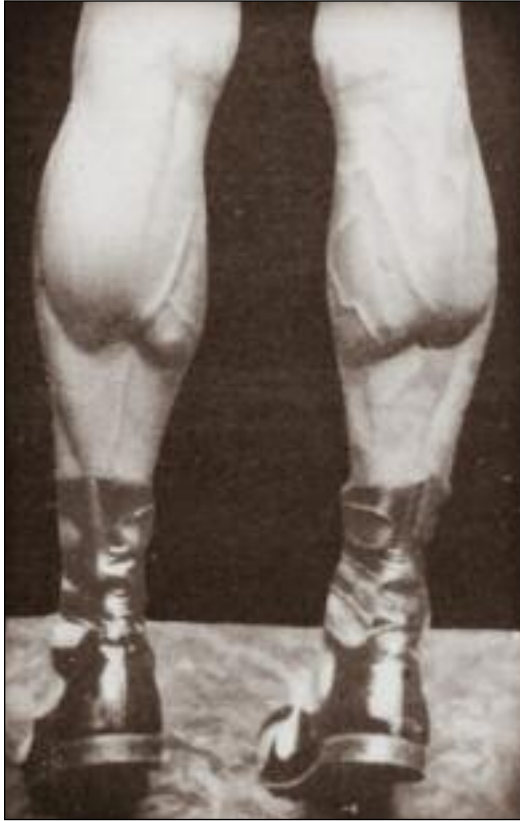


Squats—especially one-leg or asymmetrical squats—work the feet and ankles harder than you might think. Pulling the toes back even works the shin muscles to some degree. Squats make a great warm up for calf work.



## Too many progressions..?

When I show guys on the outside how to train calves with bodyweight, many of ‘em ask: *Why do I need a lotta slightly different calf exercises? Why don't I just jump to the hardest one?*



Huge weights aren't necessary to build perfect calves. These lower legs belong to Indian muscle control expert, Chanchal Prosad (c. 1930).

This is the wrong attitude. It's a big mistake to rush to the hardest exercises you can handle. Your goal is not to finish with an exercise as fast as you can—just the opposite. Your goal should be to stay with an exercise *for as long as you can possibly get conditioning gains from it*. This is the prison attitude. If you are going to be training your calves (or your pecs, or delts) alone in your cell for three years, why would you want to skip to the hardest exercise there is? There's nowhere to go from there.

This is not just a bodyweight-style training approach, either. Virtually all champion bodybuilders train this way. They don't train with limit weights from workout to workout. They train hard, but they use a “working weight” lighter than their max, and find ways to make that weight seem heavier. They milk each weight increase for all it's worth. You should do the same.

A prison athlete is not a gymnast or dancer. You don't get judged on the difficulty of your movements—just your results. In old school calisthenics, difficult movements aren't the goal. They are just *tools* to help you achieve your goals (strength and muscle). You are using these calf exercises to develop solid muscle and tendon, to put strength in the bank. This takes time. Please don't rush ahead of your body's own ability to adapt. Remember: you are using these exercises to *build* strength—not to *demonstrate* it.

## Commitment to power

Maximizing a lagging body part—especially a minor muscle like the calves, famously slow to respond—really isn't complex or sophisticated. But it will require application, willpower and above all *commitment*. If you follow the above routine as I suggest, it will take more than two years to complete. For some people it will be closer to three years. This is how real muscle and conditioning is gained; slowly, patiently, intelligently. But if you follow the program as I advise, proceeding slowly, you will gain tons of strength almost without realizing it. You will thoroughly transform your lower legs. By the time you reach the end you will have packed inches of dense meat onto your calves, and they will possess more athletic ability (endurance, tendon strength, tension-flexibility) than you would have ever believed possible. Try challenging somebody who thinks they have great calf power—maybe a bodybuilder or even a runner or a military man—to doing four sets of fifty strict unilateral calf raises off a step. It'll be fun watching them collapse to the floor before they even get halfway, clutching their flaming, cramped-up calf muscles.

Never forget that long-term commitment to calisthenics training is actually far easier to maintain than interest in other forms of training. This is because cell routines are as hassle-free as training gets. The sessions detailed above will only take minutes to complete, and they'll require no special equipment. You can train your calves anywhere, anytime.

## Advanced calf tips

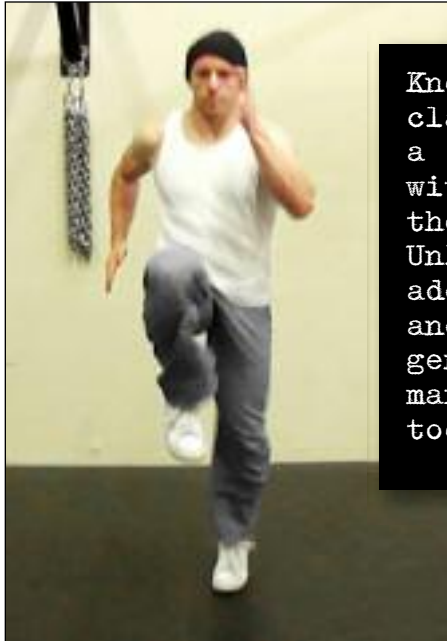
Most trainees will find that by the time they have built up to four sets of fifty in the strict straight leg calf raise, their calves will be about as thick and powerful as they'd ever want. But the road goes ever on. If you get to an advanced stage of calf training and you feel the need to add something that'll take your lower leg fitness to the next level, explore some of these ideas, cribbed from my own little black book of calf training secrets:

- **INTENSITY TECHNIQUES:**

When you have trained your calves with full-range reps to failure, try “burns”—keep on doing half-range reps from the midpoint up to the top. When you reach exhaustion on these, continue just bobbing up and down a couple of inches until your calves are completely paralyzed. Then get off the stairs, place your feet together and hop up and down twenty or thirty times. When you're done with that, perform knees-high running on the spot for a full minute...if you can. If this doesn't give you the best calf workout of your life, you are probably a Terminator or something.

- **SUPER-HIGH REPS:**

The calves seem to develop best on a diet of higher reps rather than low reps. Some people think this is because the calf muscles are loaded with “red fibers” that have a lot of endurance. I don't know about that, but they have certainly evolved to carry the body around all day. The calves can



Knees-high running on the spot is a classic cell exercise. It's often used as a stamina workout, but it can be combined with calf strength techniques to push those feet and lower legs to new limits. Unlike machine training, this kind of addition builds speed, fast-twitch power, and total-body athleticism. Use it as a gentle warm up or a brutal finisher. For maximum calf development, stay on your toes!

become very strong, and using over a thousand pounds on a standing machine is common for bodybuilders. Unfortunately this weight passes through the shoulders, spine and hips, screwing up the back and ruining the body's natural alignment. Instead of thinking in terms of *strength* for shocking the calves, focus on *higher reps*. Once in a while shoot for very high reps in a set—a hundred, two hundred, or even more. Really test yourself, but be prepared for soreness the next day.

- **NONSTOP SETS:**

The calves respond well to high reps, but increasing beyond four sets of fifty is excessive for most purposes. If you want to work on stamina, try this instead; quit alternating your single leg calf sets. Build up to the point where you can plough through all four sets *on one leg*—with a good hard stretch after each set to break things up. This will give you calves of iron.

- **INTEGRATION TRAINING:**

The calf raise series I gave you isolates the calf muscles. Condition your calves to move as a unit with the entire body by exploring disciplines like *hill sprints*, *car pushing*, etc.

- **EXPLOSIVE WORK:**

Once you have built your calf strength, learn to use that strength explosively. The best exercise for this is jumping.



"Plyometric" training—plain old jumping!—is great for adding useful power to the feet and ankles. It's also another excellent way to work the calves in coordination with the rest of the body's muscles.

#### • **CIRCULAR MOBILITY:**

Keep the tiny muscles of the ankles supple and strong. Often nagging ankle pain can be removed completely by a few sets of *ankle rotations* performed on alternating days. Just sit down, raise your feet and draw circles with your toes as wide as you can for ten reps in either direction. This exercise serves as a brilliant cool down to remove tension from the legs after an intense calf workout. Try it.

#### • **RECIPROCAL DEVELOPMENT:**

It's difficult building incredibly powerful muscles on one side of a limb if the muscles on the other side of the limb are weak and feeble. The body seems to sense the disparity and slow down your development. If you really want to maximize your calves, work on their antagonistic muscles—the *anterior tibialis* at the front of the shin. Pull your toes and insteps up as high as you can, until the shin starts to burn. Extend the toes fully outwards again, and repeat for high reps. Keeping these muscles healthy and strong will go a long way to reducing injuries like shin splints. One guy I knew at San Quentin used to train his shins by hanging upside-down from the pullup station with his feet hooked over the bar holding him. Try this for a couple of minutes if you think you have strong shins!

If you are really interested in pushing your calves to their absolute limit, these techniques are a must. Use them sparingly and focus on your progressive bodyweight work first and foremost and you'll get the calves you want—not just muscular and strong but swift, agile, supple and healthy—with more endurance than you ever believed possible.

## Lights out!

It's ironic that no body part is more associated with machines than the calves, because calves are probably the simplest muscle group to effectively train using bodyweight. This makes perfect sense if you think about it; during any given day the average Joe might not stress out his pecs, back or biceps, but with every step he takes the individual calf muscles are moving the entire weight of his body. In a sense, you are training your calves just by walking around. Have you ever noticed how fat guys inevitably have really thick, stocky calves? Some of that is chub, but probably not as much as you might think—the body tends to pile lard on around its own centre of gravity, and doesn't like putting it on the extremities like the calves. A lot of the mass is muscle, earned purely by carrying around a heavy body for thousands of reps each day.

Calves are not intimidating or macho, and they're not a muscle group that'll directly help you in a fight. For these reasons, many convicts neglect specific calf training. It's true that if you are doing lots of hard leg work, you might not even require extra calf training. But if you do, forget the status quo theory of huge weights on machines. Focus instead on bodyweight training methods, apply picture perfect form, progressive exercise, high reps, explosive work and plenty of discipline. Before you know it, your calves will resemble massive diamonds in their shape and hardness!





— PART II —

# BULLETPROOF JOINTS



One of the most crucial aspects of strength development and bodybuilding is *joint training*. If your joints are weak, there's no way you can be strong—at least, not for long, and not without a whole heap of pain. It takes years to build real, drug-free muscle, and your body can only do it if you build your joints *up* along the way. It's a tragedy that most wannabe big dudes misuse weights and machines that wear their joints *down*!

In this section, I'll teach you how to build super-powerful joints using calisthenics, how to develop mobility without becoming lax and weak, and how to tune-up a rusted and seized physique. No equipment, no supplements, just techniques I picked up behind the bars.

## 12: TENSION-FLEXIBILITY

# THE LOST ART OF JOINT TRAINING

**I**f the old time prison bodyweight masters had one lesson in common about how to build ferociously strong joints, it would be this: always, always train to generate what Joe Hartigen called “supple strength” in the “sinews”. The old timers all would’ve recognized the concept of *supple strength*, but because it might mean different things today, I’m going to update the term and call it *tension-flexibility*. If there’s one key or “secret” to strong tendons and soft tissues, you can find it right here.

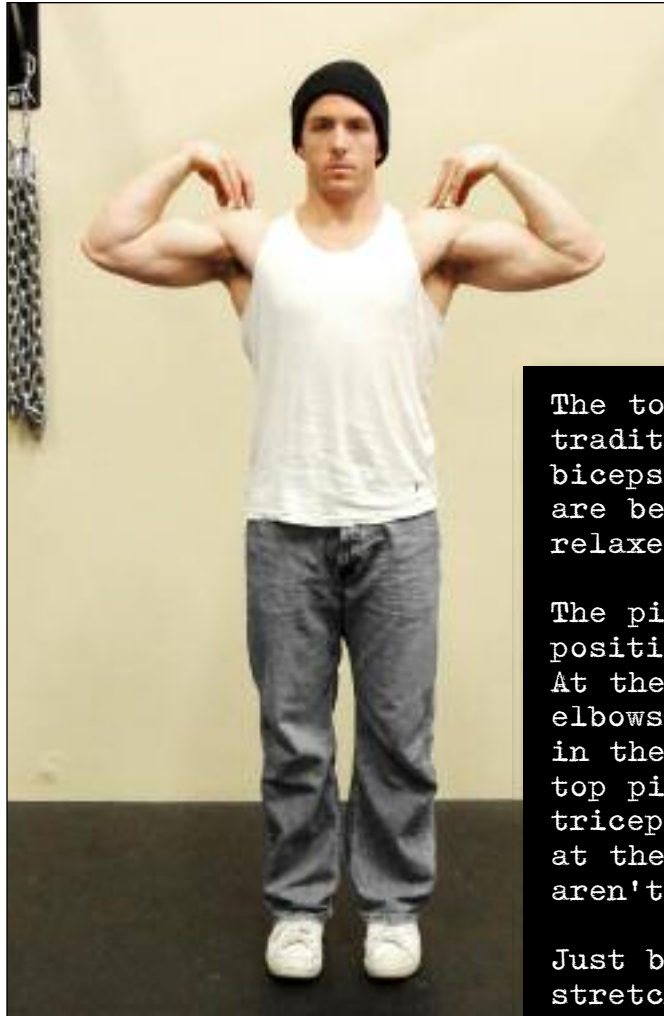
What is tension-flexibility?

*Tension-flexibility is the capacity of a muscle to remain tensed and strong even though it is stretched, or elongated.*

Tendons have *evolved* to be tensed and powerful when on the stretch. It’s what makes them *springy* and allows animals (or us) to jump, hop, sprint or perform explosive movements. In nature, if stretched muscles were flaccid and relaxed, most forms of strength and power would be impossible.

This view of “flexibility” is one that modern bodyweight strength athletes and gymnasts will know all about, although it’s very much at odds with the *general* concept of flexibility found in the everyday fitness world. When most coaches talk about flexibility, they automatically associate it with *relaxation*. This is largely because passive training methods involve deliberate relaxation techniques. It’s taken for granted that a muscle being stretched *needs* to be relaxed. But does it?

For sure, for voluntary movement to be possible, the muscles on one side of a joint must contract harder than the opposite side. But it doesn’t follow that the muscles on the other side cannot contract *at all*. They can tense quite hard, in fact—as long as they’re *not* tensing *harder* than the muscles on the opposite side, movement will still occur.



The top picture shows a traditional triceps stretch. The biceps are contracted, the elbows are bent, and the triceps are relaxed.

The picture below shows the top position of a pullup to the chest. At the top of the pullup, the elbows are bent just as acutely as in the "triceps stretch" in the top picture. But although the triceps are lengthened (stretched) at the top of a pullup, they aren't *relaxed*.

Just because muscles are stretched, it doesn't necessarily mean they have to be loose and floppy. They can still be braced and strong as steel.





We can think of lots of examples where a muscle needs to be stretched *and* powerfully contracted simultaneously. Here's one example. If you wanted to stretch out your quadriceps, and the tendons of the knee, what would you do? Most athletes would probably grab their ankles and pull their heels into their butts, like this:



For sure, this movement is a good example of *relaxation-flexibility*. The muscles of the quadriceps are being relaxed, and the knee joint is being stretched out. But what if I asked the same athlete to pop down and do a one-leg squat?



The one-leg squat is generally seen as a great *strength* exercise. It sure as hell isn't seen as a *stretching* exercise. But you can see from this picture that Max's knee is fully bent. In fact, it's bent *even more* than when he was deliberately stretching his knee by pulling on his ankle. But despite the fact that the quad and knee tendons are stretched to the limit, they are still generating a lot of tension in this position. In fact, it's obvious that they must generate a large amount of tension in the fully bent position—if they couldn't, Max wouldn't be able to begin moving and stand up straight again. Pressing variations like the *uneven pushup* are upper body analogs to the squat. In the uneven pushup, the elbows are bent to the max, but the triceps still have to generate high levels of strength and tension to press the athlete up.

It's not just the quad that's stretched in this bottom squat position, either. Scan the photo again and catch a look at Max's right hip. This joint is also being stretched. The glute is stretched so far that his thigh is compressed up against his trunk! But that glute is tensed like a rock to maintain this position, and it's about to become the motor that pushes his bodyweight up. The ankle is also highly flexed. So you can see from this simple example that a stretched muscle can also be a very powerful muscle.

Let me give you another quick example. Look at these two pictures:



In both images, the athlete is stretching out the triceps muscle of the upper arm. The shot on the left is a good example of the kind of *relaxed-flexibility* found in passive stretching. Max is relaxing his arm muscles and pulling his forearm so that the elbow is bent as much as possible to stretch out his right triceps. In the shot on the right, Max isn't *trying* to stretch at all—he's just doing a close pushup. But you can see that, for the pushup, Max's elbow is bent to at least the same degree—in fact his bicep is pressing hard on his forearm. Are his triceps *relaxed*? No way! They are tight and tensed as hell. Even the wrists are bent and stretched, but taut as steel. If Max relaxed his muscles now he'd collapse!

## Strong joints and calisthenics

The take-home message? Tension and flexibility aren't enemies. They go hand-in-hand when it comes to producing strong tendons and powerful joints. Whatever training floats your boat, make sure you gradually build supple strength, or your joints will get proportionately weaker over time—even as your muscles get stronger. This is a dangerous combination.

Many athletes are surprised that strength training in the gym seems to give them aches, pains and injuries, while calisthenics strength training keeps their joints strong, fresh and pain free. There are several reasons for this, but one of the main reasons is that bodyweight exercises develop high levels of tension-flexibility. The basic exercises involve a full range of motion—full squats, close pushups, pullups, etc. Because the extended muscles and tendons are under load in these movements, they are an ideal way to build “supple strength”. Just as important, because *Convict Conditioning* is divided into gradual, manageable stages (the ten steps) it allows you to build tendon strength slowly. It helps you walk before you can run.

Compare this with a more modern approach, like bodybuilding. Far from taking steps to develop their supple strength, most of these guys do the exact opposite. Instead of building tension-flexibility in their joints by loading their tendons on the stretch, they often *avoid* full range movements. Instead of full squats, they load up the leg press with huge weights for partial reps. And they all wonder why they have knee problems after just a few months! They shun “supple strength” and favor machines which pump up their muscles using peak contractions, stimulating the muscle bellies but doing nothing for the tendons and joints.

You'll never see a big-ass bodybuilder perform a one-leg squat or a full one-arm pushup. Their joints would rip in half. These guys pile on muscle as quickly as they can, but fail to realize that the joints and tendons adapt more slowly than the muscles. Instead of smooth, gradual development, everything grows and adapts at the wrong speed. On top of this mess, many bodybuilders have bought into passive flexibility ideas. They train these huge muscles to be loose and limp under force. As a result, when they trip, slip or have to lift something awkward, bad things often happen. Big, impressive muscles *do not* equal strong, healthy joints.

## The most popular in-gym moves build muscle, but not joint strength!

Compare some popular in-gym movements with their prison bodyweight counterparts, and you'll get a good idea of why calisthenics movements naturally build tension-flexibility better.

In the gym, most lifters use dumbbell curls to work the biceps. But at the bottom position, where the arm hangs down, the biceps are hardly under tension at all.



Compare this to a properly executed pullup—the arms are kept “soft” meaning that the elbows are slightly, almost imperceptibly, kinked. Not only does this prevent hyperextension, it keeps the elongated biceps under full tension when they are lengthened.

Machines are used more and more in gyms, because they deliver “peak contractions” at the top of a movement. They rarely develop supple strength. Here, an athlete works his anterior shoulder girdle with front cable raises. This will contract (and build) the *muscles* due to the contraction at the top, but what about the *joints*? Where’s the tension at the bottom?



Contrast this with a *lever pushup*—the front delts are forced to retain tension strongly at the bottom, while they are on the stretch. Both the muscles and the joints are developed simultaneously.

I could produce enough examples to fill a whole book, but you get the message. Tension-flexibility is a dead concept for modern trainers.

## Do you relax when you stretch? Think again.

The idea of “supple strength”—of having muscles and tendons which are *strong* while stretched—is totally at odds with most modern training methods. Contemporary methods focus on the *opposite* approach—they teach athletes to *relax* their muscles while stretching. This is the key to most “passive stretching” methods which pass for flexibility training today.





Modern writers will tell you that stretching and relaxation must go hand in hand. Wrong. Muscles and joints should be stretched *under tension*. It's the natural way to stretch. Look at this cat instinctively stretching...is its body floppy and relaxed, or tense and lithe?

Why do modern coaches and trainers teach their athletes to relax during stretching exercises? The reason is obvious. Relaxing while stretching increases the range-of-motion (ROM) of the stretch. It makes it appear that you are more flexible than you really are. But do you really need this “extra” flexibility that relaxation-stretching can give you? For sure, close pushups, deep squats and full pullups contract and extend the muscles over a healthy range-of-motion, but they will never turn you into a contortionist. The question is, do you need this extra artificial range?

Extra ROM from relaxed stretching techniques sounds kinda cool, I admit. But it's actually a double-edged sword. Relaxing into a flexibility exercise only helps you stretch further because it desensitizes the receptors in your soft tissue—called *muscle spindles*. Normally the muscle spindles work hard to stop your muscles from overstretching, but gradual relaxed stretching “tricks” them into thinking nothing's wrong. (Like when you put a frog in a pot of cool water and slowly heat it up to boiling—the frog's nervous system won't notice if you do it gradually. The principle is similar.) This desensitization process allows the muscles to stretch further than normal; but it takes time—usually at least several minutes. This loosening up period might help you increase your max ROM, but here's the nut-punch: *you need to perform that loosening up stage again if you want to access the increased ROM in the future*. You might see a lot of karate guys pull off impressive kicks in the dojo, but outside on the street, there's no way they can perform those same moves. So there's something fishy about all that extra ROM.

The old timers I trained with in jail all shared the same view, maybe for different reasons though. Joe Hartigen, my mentor in SQ, always emphasized that—far from giving you strong joints—relaxed stretching exercises gave you lax, weak joints. I heard similar views from many advanced, knowledgeable bodyweight strength guys stuck behind bars: if you want bulletproof joints, stick with your supple strength training—full range calisthenics movements with bridging and leg raises thrown in. Modern “cutting edge” articles over the last few years talk about stretching like it’s the goddam Holy Grail of injury prevention, but a lot of the old timers believed the exact opposite: relaxed stretching made you more prone to injury!

Ironically, science is only now catching up with those old prison dinosaurs. In an effort to improve the performance of their warriors, the US Army recently conducted an extensive study on the relationship between relaxation-flexibility and injury prevention.\* Guess what? Soldiers with the highest levels of flexibility were *more* prone to injuries than soldiers with average levels of flexibility!

## Brace yourself: Myotatic reflexes save the day

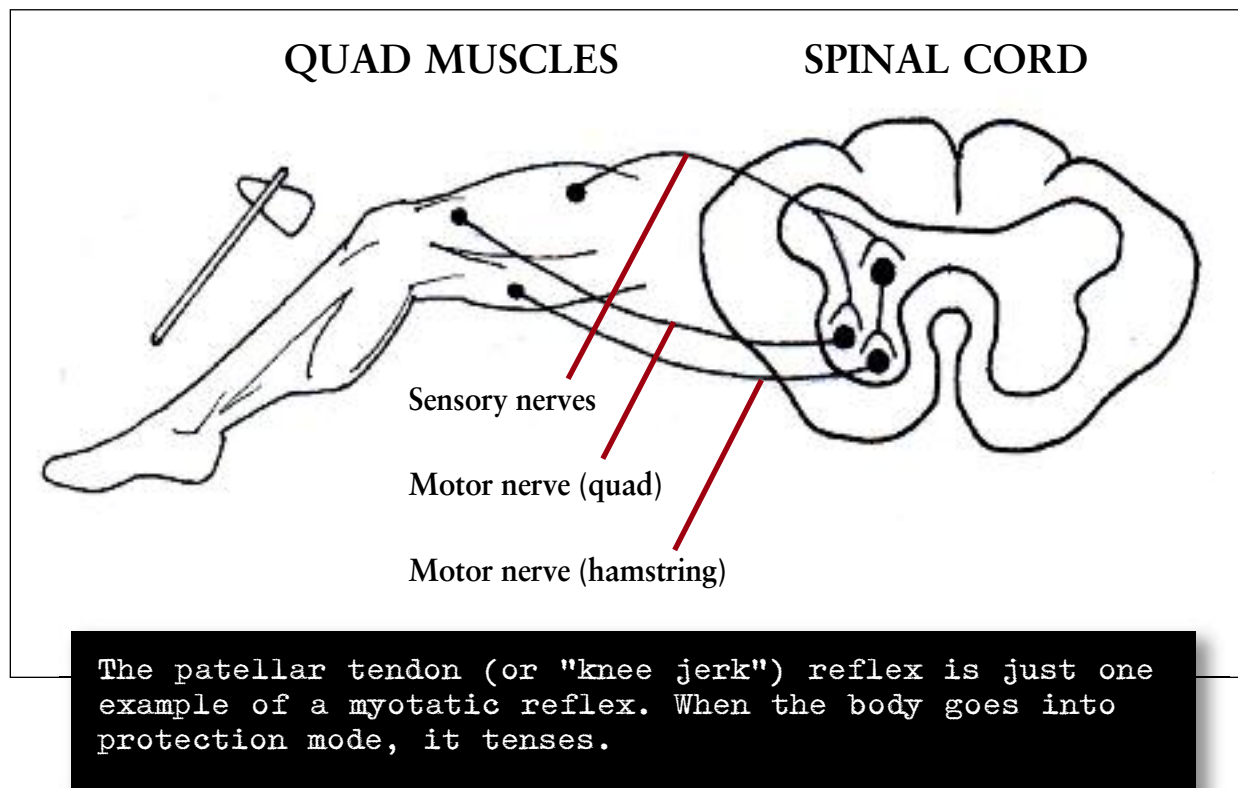
Why do athletes with high levels of relaxation-flexibility get injured more than “tenser” athletes? The answer is that passive stretching methods are based on *relaxation under force*. They train your muscles to *relax* under pressure. This is totally contrary to what your body wants to do.

Let me ask you a question: why do joints get injured in the first place? Virtually all joint injuries are caused when ligaments, tendons and soft tissues *are stretched too far*. These materials can be stretched up to a point, but beyond that point, they rip and split. The results can be devastating.

Knee ligaments split, bursae are torn, shoulder capsules are ripped open, wrists and elbows dislocate and pop out of place. These horrors are all the result of joint tissues being overstretched.

Luckily, Mother Nature is real clever. Your body intuitively understands this risk of overstretching the joints, and has put safety-measures in place to prevent it happening. These natural safety measures are called *myotatic reflexes*. These reflexes are very ancient, primitive, and totally involuntary. Whenever a muscle is exposed to sudden, shocking forces, it contracts. This is a direct result of the myotatic reflex. The classic “knee-jerk” reflex is an example of this phenomenon. If you strike the tendon of the kneecap, even lightly, the quad muscles will contract to protect the joint.

\*Physical Training and Exercise-Related Injuries Surveillance, Research and Injury Prevention Military in Populations. (US Army Center for Health Promotion and Preventive Medicine)



To put it simply, when your body gets a shock, it *tenses*. It braces itself, automatically. Do you remember the last time you were walking down the stairs and missed a step? As soon as your body felt the extra jolt of force when you hit the next step, your lower body will have undergone a series of myotatic reflexes—your leg will have tensed. It might be embarrassing to look like a spaz suddenly jerking to attention like that, but trust me, your body does it for a good reason. Tensed muscles absorb shock safely. If you relax when you take a tumble, all that extra force has only one place to go—through the joints. Without muscle and tendon to protect them, joints are fairly easy to injure. Even mild pressure in the wrong direction can easily dislocate a shoulder. If the knee is twisted in the wrong direction by just a few degrees, the ACL can be torn—forever. I could go on and on.

## Relaxation and injury

One of the reasons that passive stretching is so dangerous is that it gradually de-activates your body's vital myotatic reflexes. It replaces tension with *relaxation*. Great if you are in a hot tub—not so great if you are using your body to actually do something challenging.

A relaxed body is incredibly easy to injure. This is as true for the trunk as for the arms and legs. A single punch can end a fight, if a boxer's not ready for it—and by "ready" I mean "tensed". Just ask a karate fighter. For centuries, those dudes have been performing tension exercises. When they get struck, they *need* their muscles and tendons to be taut and strong to act as armor for their internal organs. Their training supports their myotatic reflexes, and makes them more indestruct-



ible in combat. Gymnasts brace for a landing, as do parachutists. Even Olympic divers retain body-tension when they hit the water. In any discipline where big forces are suddenly introduced to the body and the chance of injury is high, athletes are taught how to support their myotatic reflexes by maintaining the right kind of muscular tension.

Don't believe that flower power bulls\*\*\* that a relaxed body is impossible to damage. We've all heard the old wives' tale that drunks rarely get hurt when they

fall over, because their bodies are relaxed. It's just that; an old wives' tale. Talk to medics who work in the Emergency Room over any given weekend. The vast majority of injuries they are forced to deal with are alcohol related. Falling onto concrete braced is bad enough, but falling relaxed like a drunk is a sure way to really hurt yourself. It might even kill you—many drunken falls result in severe head injuries because the cervical spine is too relaxed to contract and prevent the head from striking asphalt. Excess alcohol can interfere with the nervous system and make your myotatic reflexes sluggish, but this ain't a good thing. Getting wasted might be fun, but it certainly doesn't protect you from injury. Just the opposite.

## Tension-flexibility: a caveat

Exercises which generate high levels of tension-flexibility (like *one-leg squats*) strengthen the joints like nothing else. But you can't launch into them overnight. Your tendons and soft tissues can and will adapt to these exercises, but you need to give the body the correct preparations—which is the reason why progressive calisthenics begins with gentle steps which allow the tendons to strengthen at their own speed. Rushing into hard “supple strength” exercises, such as *close pushups* might give the *illusion* of ability, but athletes who slowly build up to these exercises will have stronger and healthier joints in the long run. Tension-flexibility exercises can be tough. (Which is why many bodybuilders purposefully avoid them.)

Another important point to make is that your muscles need to be elongated under load during tension-flexibility training. But “elongated” does not mean “hyper-extended”. Moving your limbs in their normal range is perfect. You don't need (or want) to become a contortionist to gain maximum supple strength.

One last word of advice. When training your muscles to be strong while stretched, stick only to those exercises which mimic your natural biomechanics. Steer clear of anything forced or painful. Heavy pressing or pulldowns with a bar behind your neck might stretch your muscles under load, but they also put your rotator cuffs in a vulnerable position. The same is true for most fixed barbell presses and many machine exercises. Avoid.

## BRACED FOR STRENGTH

The old time strongmen understood that hard contractions were the key to powerful joints. You didn't find them doing any faggy aromatherapy or freeform dancing to "loosen up". Instead of *relaxing* their joints, these dudes did the exact opposite: the real powerhouses utilized "support lifts", where the body was locked in one position and weight loaded on or lifted over a tiny distance. When I say "weight" I mean *real* weight! When Louis Cyr wanted to train his joints, he "back pressed" 4337 lbs. Warren Lincoln Travis held 3985 lbs in the harness lift. Strongfort kept aloft 3.5 tons in the "human bridge" support hold. The great John Grimek routinely supported over a thousand pounds overhead.



Think a 150lbs barbell is "heavy"? In one of his incredible feats, Saxon supported that barbell-plus eleven men!

These support lifts forced the muscles to flex as tightly as possible around the joints, making for a super-strong protective sleeve. I wouldn't advise anyone to actually copy feats like this, because the risks involved are too high; but this kind of work undeniably produced ultra-strong tendons and joints. The forces used were so heavy, they even went through the bones themselves, stimulating and thickening the ligaments that hold the joints together!



## Lights out!

If you want high levels of supple strength, you don't need to use fancy machines, bizarre exercises or expensive "supplements". The best thing you can do is skip the modern stuff and stick to good old-fashioned calisthenics, using bodyweight. Be progressive—begin training the movements in a full-range of motion, but with very little resistance (*jackknife squats*, *wall pushups* and *vertical pulls* are great examples). Build up slowly until you are moving the bulk of your bodyweight (*full squats*, *full pushups* and *full pullups*), then push things further by going on to only one limb (*one-leg squats*, *one-arm pushups* and *one-arm pullups*). This is the approach I learnt in prison, and it not only gives you incredibly powerful joints, it also helps you get that power *safely*, because you give your tendons and soft tissues time to adapt to the demands of tension-flexibility. Following this kind of "supple strength" routine should be the cornerstone of your training if you want strong, healthy joints.



## 13: STRETCHING—THE PRISON TAKE

# FLEXIBILITY, MOBILITY, CONTROL

**I**t seems like, on the outside, everyone everywhere is all about getting flexible. They are bending themselves into weird mathematical shapes, learning the splits, yadda yadda yadda. A gym just ain't a gym without stretching mats. Stretching is an integral part of each and every workout. (It even gets its own special sessions.) Many athletes are spending more time stretching than working out! Flexibility is seen as a core component of fitness, these days. If you don't favor stretching, you're a dinosaur, a barbarian.

You don't see this behind bars.

Inside jails, athletes focus on *strength* first and foremost. Where flexibility exists, it exists hand-in-hand with strength. You see it in bridges, high leg raises, in calisthenics exercises performed with a full range of motion. Flexibility for its own sake? You might see guys doing light stretching in between sets to loosen up muscles over-pumped with blood and waste. You might see guys stretching and flexing a little to help them prepare for a specific muscular exercise. And you will probably see cons gently stretching out muscles tightened up by scar tissue and injury. Beyond that? Nothing. Nada. Prison athletes don't see the point of stretching—and they certainly don't practice stretching for its own sake.

Guess which approach I buy into?

## Flexibility should be a by-product of calisthenics

Prison athletes don't focus on stretching, because they understand that flexibility without strength is useless. Good mobility should come as a by-product of correct strength training. The calisthenics masters I trained with had no interest in "flexibility". They were primarily interested in proper "extension" (i.e., *range-of-motion*) of strength techniques. This is what naturally gave them "supple strength". They often spoke of "tendon training" or joint work, but never *flexibility*. Being a contortionist for the sake of it? They weren't interested in that. Why would they be? This worship of flexibility is a modern idea.

Old time bodyweight athletes didn't stay up nights worrying about their flexibility. They thought only in terms of *strength*. Strength is *control*—whether control of your body, control of a weight, or whatever. (Shoving, pushing or heaving something may represent *power* or *speed*, but not *strength*.) Having the strength to control your body is *essential*. Having levels of flexibility which exceed that control is *not* essential—it's *counter-productive*. What's the point of possessing muscles which can be stretched beyond the point your strength can control? That just leaves you liable to injury.

## Strength + flexibility = mobility

People often confuse *flexibility* with *mobility*. This is a mistake. Mobility is *the ability to move yourself*. Mobility, therefore, is based on strength first, and flexibility second. Examples of mobility—running, leaping, dodging—are dependent upon muscle power primarily. Tight muscles are undesirable, sure. But the flexibility athletes really require is automatically generated by *muscular movement*, rather than passive stretching exercises. Truly mobile, agile animals all possess supple strength; tension-flexibility, rather than relaxation-flexibility. Think *panther*, baby!

This idea of mobility as primarily *strength-based* is as true in everyday life as it is in athletics. Standing on one leg and lifting up the other leg to put a sock on requires a certain level of strength (control) to raise your foot up to your hands. It doesn't matter how *passively* flexible you are—how high you can raise your foot up when someone else is pushing it. This is not mobility. If you can't raise your foot by yourself, that theoretical flexibility is wasted. Useless.



If a buddy bends your spine for you, does that count as true mobility? Compare these two passive stretches with bridges and L-holds (ch. 14).

## Convict Conditioning and flexibility

This is where most prison athletes are coming from. The old bodyweight guys weren't savages who were too dumb to appreciate the cutting-edge benefits of stretching. They just saw the true relationship between flexibility and strength more clearly than most modern athletes. They knew damn well that having high levels of flexibility without the strength to control it is like having a raging inferno without a strong steel furnace to constrain and direct it. It might look impressive, but in reality it's useless and dangerous. The strength has to come first.

This old school attitude is reflected in *Convict Conditioning*. I want you to build *strength* and *mobility*. Flexibility? Only as it goes hand-in-hand with strength. I teach all my students to train their muscles with a deep range of motion. Even where I promote half or partial movements, these are always combined in a workout with full range techniques. Full pushups, full squats, full pullups. Always.

Look at specific joint training techniques I promote—like the *twists*, *bridges* and *L-holds* of the *Trifecta* (see chapter fourteen). To the untrained eye, they might *look* like flexibility exercises. But in fact, when performed correctly, they require more *strength* than flexibility. The *muscles* should be leading the movement—where the movement fails, it's because the leading muscles cannot contract hard enough. “Flexibility” is just along for the ride. You *will* iron out tight muscles using my methods, and you will certainly maximize your mobility, because mobility is strength-led. But you won't become lax or over-loose like many injury-prone modern athletes. You can't. Your strength and flexibility will be in perfect balance.



## Passive vs active stretching

When I train my students, I focus on strength, first and foremost. If I see someone wasting their time performing silly stretching exercises instead of training their muscles hard, I usually slap the bastards. As a result of this, some of the people who know me have come away with the message; “Coach Wade doesn’t believe in flexibility”. That ain’t right. I *do* believe in the importance of flexibility. But I believe in *strength-led* flexibility—where muscular contraction controls the range of motion. (This is often called *active* stretching.)

*Passive* flexibility is a different matter. There are various types of passive stretching, but I define passive stretching as:

*Elongating relaxed muscles and soft tissues using an exterior force.*

Examples of an exterior force might include:

- *External weight* (as in a stretch deadlift)
- *Momentum* (“bouncing” a stretch)
- *Leverage* (as in trapping your foot and bending forwards)
- *Pushing with another body part* (for example, bending your wrist back with your opposite hand).
- *Machinery* (like those dumbass splits machines you see in kung fu magazines)

I don’t count *gravity* as an exterior force. The body’s own weight under gravity is something we evolved to stretch against. Every time you do a deep squat or pushup you are stretching the muscles under gravity. More importantly, you never *relax* during these exercises. Your muscles are in control. In my definition, *passive stretching* occurs when your muscles are *relaxed* and are stretched by something *external*. It could be because a partner is stretching you (see the image on page 165), or it could be because an object—like a barre—is stretching you (see photo opposite).

I don’t believe in *passive*, relaxed stretching, for reasons I gave in the last chapter. But active stretching is a good idea if you want to improve your mobility. I usually advise a pretty minimalist approach to *active* stretches—just a few powerful strength-led stretches for the entire body (the three *Trifecta* holds of chapters 14-17 are active flexibility techniques). But there are a wide range of active stretches to choose from. For a more complete discussion of the science and discipline of active stretching, check out Pavel Tsatsouline’s excellent *Super Joints*. It’s the ultimate manual on the topic.



In this picture, the dancer is trying to increase the flexibility of her hips and hamstrings by performing a *passive* stretch on the barre. She is using her positioning (leverage) and *relaxation* to elongate her muscles.



Here, Max is also stretching his hips and hamstrings, but he's doing it by *active* stretching-applying *tension* instead of relaxation. (Your leg has to extend straight out like this at the bottom of a one-leg squat.)

## The correct role of passive stretching

Don't throw the baby out with the bath water, though. Just because I don't promote passive stretching as a *workout*, it still has its uses. Passive, relaxed training has value in three ways:

1. As a rehabilitative method, to stretch out tight scar tissue and promote blood flow—when active stretching would cause re-injury;
2. As a low-intensity therapy following high-intensity bodyweight training, to assist the circulation and help remove wastes from pumped-up muscles;
3. In special circumstances, to free up overly stiff movement patterns to allow athletes to perform calisthenic techniques (for example, learning to get into position for the *front bridge*).

Beyond these three? No passive stretching is required. The hours most athletes free up to do passive stretches are *wasted*.

If you want flexibility, what should you do?

That's easy—try *active stretching*.

## Active stretching and bulletproof joints

If you want bulletproof joints, you need to focus on calisthenics. If you do add some stretching, it should be *active* stretching. Passive stretching is useless for protecting the joints—in fact, it makes the joints *more* vulnerable to injury, not less (see page 158-159).

What's so hot about active stretching? Here's some basic reasons for y'all:

### - **Active flexibility goes hand-in-hand with tension flexibility**

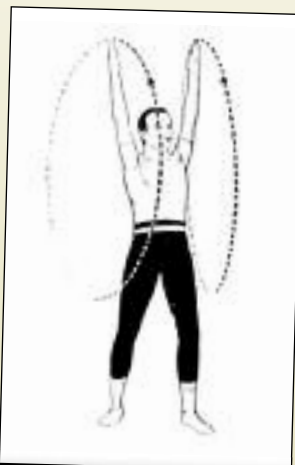
If you've read chapter twelve through (if not, why not?!) you'll know why I'm big on tension-flexibility, or "supple strength"—the ability of your body to generate force safely, even when your muscles and joints are stretched. It's the best way to strengthen your muscles. Fortunately, active flexibility training is an excellent way to safely improve tension-flexibility.

Passive stretching trains you to *relax* your muscles as you stretch them; relaxation is a key part of the method. During active flexibility techniques, some of your muscles are already firing to the max just to move your joints—far from causing overall relaxation this results in a radiation of

tension around the limb, trunk, or whatever you are working. Once you are aware of tension-flexibility, you can easily include it during active stretching. Once you are in the stretch, don't relax. Brace yourself—tense everything hard!

## JOINT CIRCLING

If you want to refresh tight or tired muscles, you don't need to resort to passive stretching. Try *joint circling* instead. Joint circling is not really “stretching”, but an opening and closing of the joints to promote circulation of fresh synovial fluid. This is a low intensity, low skill way of “oiling” your joints (see page 177). Joint circling actively revives the joints and increases blood flow without damaging the muscles at a cellular level, unlike hard stretching. This means you can do it several times daily if you feel the need.



### JOINT CIRCLING DRILLS:

- Neck
- Shoulders
- Arms
- Elbows
- Wrists
- Mid-spine
- Hips
- Knees
- Ankles

Arm circles are a prime example of joint circling. Just make circles with your arms—bigger circles each time. (Try two sets of 20 reps, in both directions, as a great warm up for creaking shoulders.) Joint circling is simple and should feel good. Find a way to make the joint a pivot to circle your arms, wrists, knees—anything that feels a bit stiff or sore.

### - Active flexibility teaches your body to work as a unit

Passive flexibility methods focus on the body in a very partial, isolationist way. If you are stretching your hamstrings, for example, you are stretching your hamstrings. The opposite muscles—the quadriceps—are not being stretched. They aren't doing anything, really. Ideally, they should be *relaxed*. Tension is avoided like the plague in passive flexibility training. As a result, whenever you perform a passive flexibility exercise, only one side of the body (or limb, or joint) is getting the workout.

In a way, this approach is a parallel of the bodybuilding fallacy of isolating the muscles during training. Both methods treat the body as if it were simply a collection of parts. Unfortunately it's not—it's a complex system. Everything works together. In the real world, it's never true that one side of the body stretches while the other side relaxes. In real-life movements, one side of body has to contract hard to make the other side stretch out! Active stretching methods mimic real life. The area that stretches only stretches to the degree that the opposing muscle group can contract.

When a training method works in harmony with the body and helps you improve your contractile ability and your flexibility *at the same time*, you know that's a method you should look at.

### **- Active stretching is safer than passive stretching**

This simple fact also makes active stretching far safer than passive stretching, for healthy people. It's easy to get injured performing passive stretches, because an exterior force is moving the body. But during active stretching, *the body moves itself*. The nervous system acts as a natural "safety valve" preventing overstretching. Trust Mother Nature!

### **- Active flexibility training increases strength**

So many guys out there are working their butts off lifting weights or performing complicated bodybuilding routines, it's easy to forget that active flexibility training is the most natural, basic strength booster. For sure, very simple active flexibility exercises won't give you nineteen-inch arms and thirty-inch quads, but they can give you something healthier; the power to control your muscles and generate very high intensity contractions. Most people just aren't used to contracting their muscles as hard as possible. Ask a couch potato to slowly raise his locked leg to the side, and he'd probably only be able to lift his leg a couple feet off the ground. Imagine the special hip strength it takes to raise one locked leg out to the side like Van Damme...now apply that kind of contractile strength to every single muscle in the body, and you get the idea.



"Q. How strong do the hips need to be to raise the leg this high—in slow motion?

A. Pretty freakin' strong, son."

Without high intensity contractions, true strength is impossible. Active flexibility exercises are like a tune-up for the nervous system; because they force you to tighten your muscles as far as possible, they amplify the neural patterns which are responsible for intense muscular contraction. Even if you did no other training, a program of active flexibility exercises would boost your strength in the healthiest way possible. But if you *add* active flexibility work to a regular strength training routine (especially a bodyweight strength routine) both programs will work in synergy, enhancing each other and augmenting your results significantly.

**- Active flexibility training increases your “functional” ROM**

Many people use passive flexibility exercises because they think it’s the best way to increase the range of motion of their muscles and tendons. This is simply untrue. It is true that by learning to relax and stretch passively—using an external force like a partner, a weight or a leverage position—you can push your muscles further in any direction than by active flexibility techniques. Many athletes quickly latch on to this fact. But what they don’t realize is that this extra range of motion is *completely useless*. The only time you can actually *access* that range of motion again is when you are progressively warmed up (to deactivate the muscle spindles) and when your body is subject to external forces.

Think about this for a second. When you passively stretch, you are training to generate an ability you can’t control. It can only be “turned on” by external factors, like violent momentum or an exterior force. Essentially, you are training to lose control of your muscles!

Active flexibility is totally different. Whereas passive flexibility practices will increase the *maximum* ROM of your warm muscles, active flexibility maximizes the *functional* ROM of your muscles. Because active flexibility involves moving the body under complete muscular control, I call the resulting increase in range of motion a “functional” increase. Unlike the ROM developed through passive stretching, it’s something you can really use. ROM which is not matched by strength is pointless. In fact, it’s *fake*. What’s the point of being able to *force* your body into the splits, if your muscles are only powerful enough to lift your leg to thigh height?

By using active methods you can and will increase the ROM of all the joints in your body. But you will do this safely, in a balanced way, and at your body’s own speed. Nothing is forced; nothing is fake.



## Lights out!

Let's plane this down to a simple, take-home message for the future bodyweight legends of tomorrow, okay?

- There are two types of stretching; strength-led, which you control (*active stretching*) and stretching using an exterior force (*passive stretching*). Passive stretching usually involves learning to relax your muscles to help stretch further than normal.
- Just as bodyweight experts prefer to train using their own bodies instead of external weights, so most prison athletes prefer to use their own strength and avoid being stretched by an exterior force. When they stretch at all, it is strength-led stretching, and even then, they think of it as *joint training*, not *stretching*.
- Passive stretching has some benefits, but these mostly lie in stretching out injured bodies, which can't yet take the stresses of active stretching. Passive stretching is a *therapeutic* method—not an *athletic* method.

The “secrets” to healthy joints with a functional range of motion are simple, but they've been forgotten on the outside. When you train, focus on bodyweight movements, and build to a full range of motion on basic exercises. When you do choose to stretch, focus on active stretching—the muscle-led stuff—and forget passive stretching as long as possible.



What if you are already engaged in a productive bodyweight routine, and want to take your joint training even further? What if you want truly *bulletproof* joints? During my decades of prison training, I've picked up a handful of advanced tricks which—when combined with a “supple strength” routine—will maximize your joint health in only minutes a day. Sometime in the late eighties, I alchemized these tactics into a simple routine. I call this beauty the *Trifecta*, and it gives radical results! It will take a body from stiff and immobile to lithe, young and agile—in only minutes a day.

We'll look at it in the next chapter.

## 14: THE TRIFECTA

# YOUR “SECRET WEAPON” FOR MOBILIZING STIFF, BATTLE-SCARRED PHYSIQUES —FOR LIFE

**W**

hen I left SQ in '88 I was thirty-one years old. At around that time, I began hanging out with some friends of some friends, back in Richmond. One of my new buddies was a big-ass tattooed Irish freak called Carter.

Carter was as large as a house and strong as hell. He was pretty much a free weights animal. He rarely used machines in the gym; not because he didn't like 'em, but because they couldn't hold enough weight to test him. Sometimes he'd get his training partners to jump on the leg extension stack to add another 250 pounds for negs, crazy stuff like that. He didn't compete, but had some damn respectable powerlifts under his (rapidly expanding) belt. He could bench 350 and change, and didn't need a shirt (or much of a warm up) to do it. He had deadlifted six plates a side, though he told me that was a thing of the past, since his back had “gone” in '85. Fairly decent curls with eighty pound dumbbells were no problem, and he would press kegs, steel drums and logs with his buddies for fun. He was a big, powerful monster, but friendly in a gruff way—kind of like a bear.

But despite all his power, Carter had some problems. He was on the wrong side of forty, and his body no longer moved the way it used to. He complained to us that he often had to sleep with his arms over his head, because his shoulders hurt so much. When he woke up, he had to gobble some painkillers he left on the nightstand just to get out of bed. Even once he was up and moving he walked stiffly, like an old guy. If he sat down or had to get on the floor, he needed to put his hands on his knees just to get back up...this, despite the fact the dude could probably back squat a Harley for sets of ten. "I don't so much have a body as a collection of injuries," was one of his sayings.

Although Carter and I had very different ideas about training, we sometimes shot the s\*\*\* about different topics like muscle-building, high-rep training, stuff like that. But one night over a few beers, we eventually started talking about injuries, and Carter damn near broke down telling me about all his aches and pains. He knew I was in good shape from coming out of my San Quentin term, and he asked me for some advice.

"If your body was as f\*\*\*ed as mine, what would you do, Paul?"

"Simple," I told him. "I'd quit the heavy weights. Right now. I'd start up with a program of simple calisthenics. Full body s\*\*\*. When you start feeling better, throw in some rope climbing then maybe some handstand work. You'll keep your strength, lose that gut and be feeling like a new man in no time."

Carter looked down and shook his head.

"No way man," he said. "I'm a born lifter. Gonna be lifting iron till the day I die." This brother was addicted to the weights. He went on; "Can't you just give me some kind of secret prison routine to loosen me up or s\*\*\*?"

I took another glug of beer (I drank, back in the day), wiped the suds from my mouth, leant back and thought about it.

## Unleashing the "Trifecta"

A couple days later I came back to Carter, and gave him a workout with only three exercises in it. These techniques weren't even movements—they were *holds*. Once he learned to perform these holds, he did them at least every other day. Within ten weeks, Carter had eliminated 90% of his joint pain, and was optimistic that he'd lose the remaining 10%, too. He'd not only regained all his mobility, but he claimed he was more lithe and agile then when he was a teenage basketball player at Lincoln High...despite all his extra bodyweight. Carter loved the routine I gave him so much he started calling it the "Trifecta"—*the perfect three*. I lost touch with Carter a while after that, as our lives went in different directions. I heard from the man again about five or six years later; he was back deadlifting. He was still doing the Trifecta religiously.

Does this all sound too good to be true? Well, don't take my f-ing word for it, pal. Just try it yourself, for five weeks. Then you'll see. But before I show you the actual program, let me try to convince you a bit about how and why it works.

## Joint training- 3 tricks of the trade

Whenever someone asks me for the key to strong joints, I always talk about progressive calisthenics first. I discuss calisthenics movements because they gradually develop the right kind of “supple strength”—or *tension-flexibility*—in the tendons which I talked about in the last couple of chapters. But some people—like Carter—just have no interest in a diet of pushups, pullups and one-leg squats. They need to feel the steel. So instead I thought about alternative ideas I had learned about joint training beyond the principles involved in supple strength. I asked myself: *is there anything athletes can use—in addition to their strength training program—to improve joint function and health?*

I instantly came up with three ideas; three of the most powerful tactics in joint training there are—period.

They are:

- 1) Focus on the functional triad;
- 2) “Oil” your joints;
- 3) Use active stretching.

I combined these three ideas into a simple, fairly easy to learn routine. This routine—hastily scribbled out on the back of a napkin—became the program now known as the Trifecta. Let's look at these three points, one-by-one.

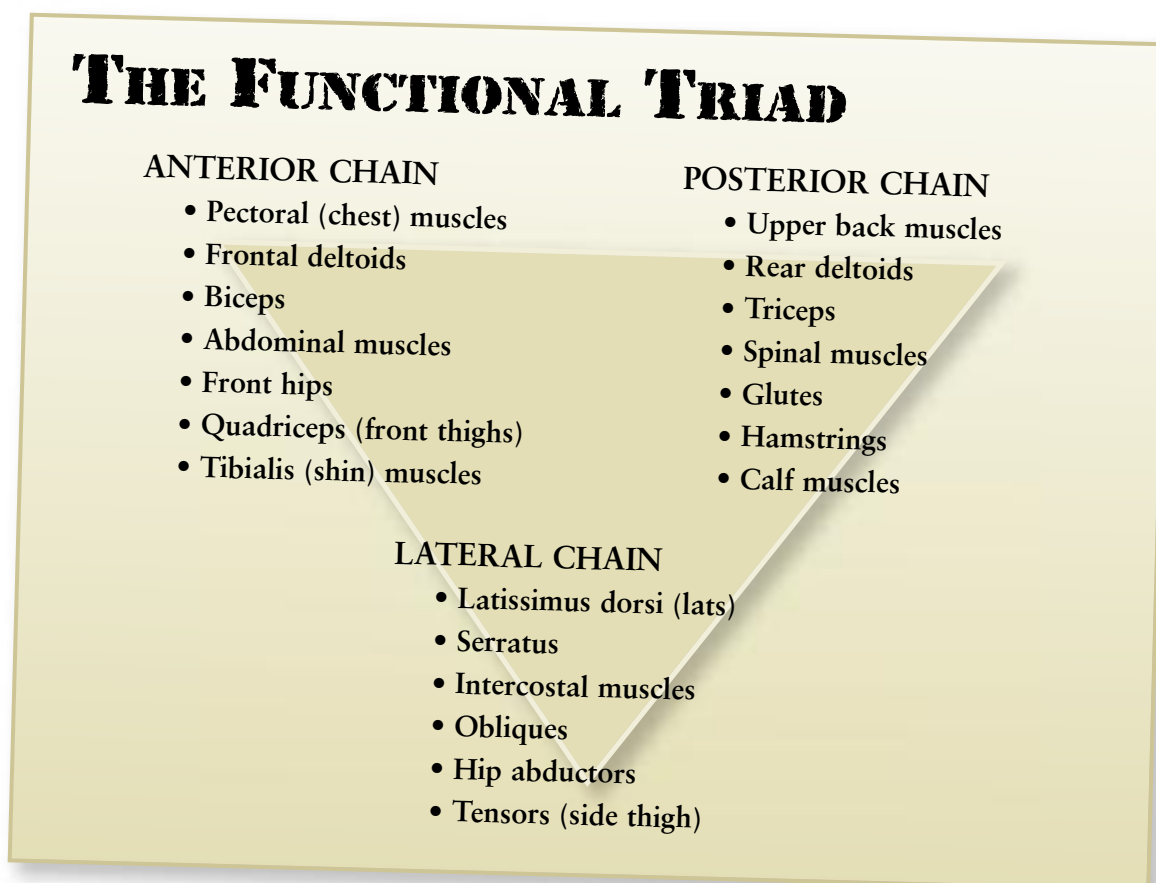
### 1) FOCUS ON THE FUNCTIONAL TRIAD.

Back in the day (50s/60s onwards), weight-training writers sometimes used to talk about the “beach muscles”—the muscles visible on the front of the body. I'm talking about the shoulders, the pecs, the biceps, the abs and the quads. These muscles are sometimes considered the “physique” muscles. If you want to look good for chicks while you're on the beach, these are the muscles that gotta stand out. At the same time, it was recognized that the *real* strength muscles—the muscles which lift the weight in a huge deadlift, clean or pull—lay at the *back* of the body. I'm talking now about the hamstrings, the glutes, the calves, the spinal erectors and traps. These muscles feature in all the great lifts and are incredibly strong. For a lot of guys training before the seventies, it was understood that a dichotomy existed. There were “beach muscles” at the front of the body, and “work muscles” at the back.

Modern bodybuilders generally forgot this concept, but coaches and strength writers kept it alive. They updated it a bit, though—and added some snazzy pseudo-scientific language to make it all sound ever-so-smart. They called the “beach muscles” the *anterior chain*, and the “work muscles” the *posterior chain*.

This basic idea still holds true. But many lifters forget what bodyweight strength athletes could never forget—the body is three-dimensional. As well as the anterior chain (front) and posterior chain (back), the body also has a *lateral chain*, comprising the muscles of the *side* of the body. I’m talking about the tensor muscles at the side of the legs and hips, the obliques of the waist, the serratus and intercostals of the ribcage, plus the famous “lats” running under the armpits.

These three chains form what can be called the *Functional Triad*:



Some thinkers talk about more than three muscular chains—some stretch it out to six! But for me, this is over-thinking it. There are only three fundamental chains. Train those right, and you got all your bases covered.

Understanding the Functional Triad is essential if you are going to train your joints. Most mobility work is totally unbalanced. Bodybuilders have stiff, over-trained *anterior* chains; heavy “ground up” lifters have over-trained *posterior* chains; most martial artists build flexibility in their *posterior* chains and *lateral* chains, but not their *anterior* chains; and so on. This is all unbalanced training. It builds dysfunctional asymmetry into the body and invites injury.



There is only one “cure”—a functional joint training program which restores harmony and balances the body by training *all three* of these chains equally.

## 2) “OIL” YOUR JOINTS.

The most muscular, powerful athletes in the world train intensely and *infrequently*. They work their muscles and tendons hard, then give them time to rest, recover and grow stronger. This is the perfect recipe for mass and strength—even “supple strength”.

Unfortunately, although this kind of work thickens and strengthens the muscles and tendons *around* your joints, it doesn’t necessarily do as much for the ligaments, cartilage, and soft tissue *inside* your joints.

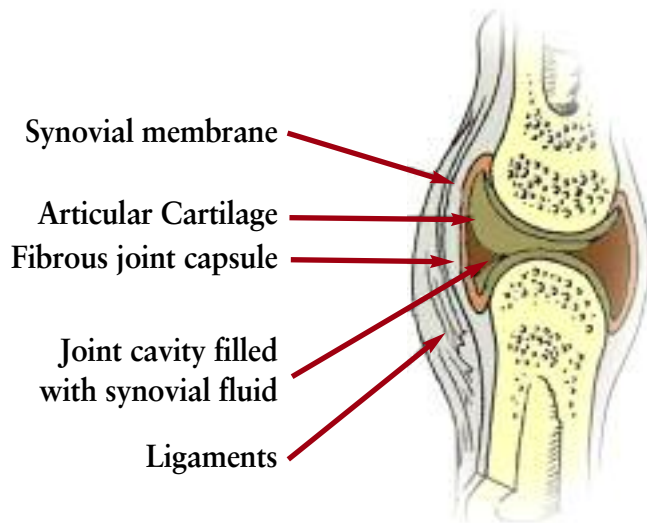
There is virtually no blood flow inside your joints. Whereas your muscles and tendons get their nutrition from the *blood*, cartilage is fed by a thick solution called *synovial fluid*. This fluid is rich in oxygen and proteins and contains everything the joints need to thrive and grow stronger. Synovial fluid also acts like a lubricant, like the motor oil in your car. It removes waste, feeds the insides of your joints, cushions them and protects them from damage. It’s great stuff. But whereas the blood is pumped round the body by the heart, synovial fluid is only generated and circulated by movement—it’s the *opening* of the joints that freshens this fluid and send healthy supplies to cartilage.

That’s why strength training alone will not optimize your joint health. Training hard too often will wear down the joints, and training less frequently starves the joints of synovial fluid. There’s only one solution. For optimal joint health, you should perform your strength training with enough rest time to recover; and on non-training days, you should perform mobility exercises to nourish and “oil” your joints.

The best way to “oil” your joints is by using calisthenic “holds”. Maneuver yourself into a stretch, and then hold at the top. If there’s a “secret” to why yoga helps so many people become pain free, it’s this method. A good example of such a hold would be a back bridge—push yourself to a peak stretch, then hold at the top. This type of stretch opens the cartilage (in this case, the discs of the spine) to the maximum degree, allowing an optimal amount of fresh synovial fluid to circulate.

In *Convict Conditioning*, I focused on *moving* calisthenics, rather than “holds”. Moving calisthenics fatigue the muscles quickly, and builds muscle, strength and endurance. Because the muscles aren’t moving a load, *holds* don’t exhaust the body as much. This is ideal when it comes to joint training—it allows you to train joints much more frequently and still recover. I advise people to use mobility work on non-strength training days, but that’s just a rule of thumb. Once you are conditioned, you can perform holds every day; some people perform holds several times a day, to refresh their joints and shake out the cobwebs. This daily work would be impossible with hard-core *moving* bodyweight techniques. You’d burn out in no time.

# SYNOVIAL JOINT



Synovial fluid is the “water of life” for the joints. It is responsible for:

- Shock absorption
- Lubrication
- Nutrition
- Waste management

Healthy supplies are *essential* if you want superhuman joints.

Performing daily stretch-hold techniques won't just feed and water your joints. It also increases *mobility* in the quickest possible time. Brutal, hard-ass strength training increases strength, but it can be hard on the body at a cellular level. Over time, it results in adhesions and scar tissue, in the muscles and joints. These will kill your flexibility stone dead—it's the major reason why most veteran lifters are stiff as boards. Daily work with stretch-holds will cure this problem. Calisthenic holds ease out tightness naturally, removing adhesions, waste and toxic build-up. Many athletes force their stretches with bouncing techniques or the use of external weights or machines. This might give short-term results, but in the long-term it causes microtrauma to your muscles, just like weight-training. Avoid these methods, and stick to calisthenic-based holds performed smoothly and under your own power. If you use weights or momentum to stretch, overstretching is inevitable. If you use the power of your own muscles, your nervous system acts as a natural safety-valve.



"Buddy" stretches are a popular example of a passive stretch. But if somebody else is controlling your range-of-motion, how much is too much? With active stretches, your body's own neuromuscular systems control the range-of-motion. You get a perfect stretch for your level of ability each time, every time.

In the last couple pages, I've given you some major secrets for life-long healthy joints. They are secrets most athletes overlook. They are:

- Stick to movements that *refresh* your body rather than tire you out;
- train *frequently* to feed the internal anatomy of your joints, and;
- work on *calisthenic-holds* instead of aggressive stretching routines.

This sounds simple and basic, but the most powerful ideas often are. I know what you're thinking—but *Paulie*, what “calisthenic-holds” should I be using?

Glad you asked...

### 3) **APPLY ACTIVE STRETCHING TECHNIQUES.**

If you've already read chapters twelve and thirteen, you'll know I'm not a big fan of training to get your muscles and joints lax and loose. This is how most people today train, but it's not how prison athletes do it. Real bodyweight powerhouses—the ones with truly bulletproof joints—don't train to become flaccid and relaxed. They train for *tension*.

Muscles which are *flexible yet tense* are the key to strong joints which can safely absorb force. Which would you rather have for your car's shocks? Spongy rubber or hard steel springs? The strong steel would flex and absorb forces far better than the rubber, which would rip or tear before it absorbed anything.

Apply this principle to your Functional Triad training! Forget pussified relaxation-type techniques. Loose, relaxed *passive* stretching is out for now. I want you to train your joints by using antagonistic muscle-power rather than relaxation. This method is *active stretching* (as described in the last chapter) and it encourages supple strength, mobility and agility all at once.

Active stretching is simple: *you stretch out one half of the body by contracting the opposite half*. Let's apply this to the Functional Triad:

- If you want to stretch your anterior chain, you do it by contracting your posterior chain—as in a *bridge hold*.



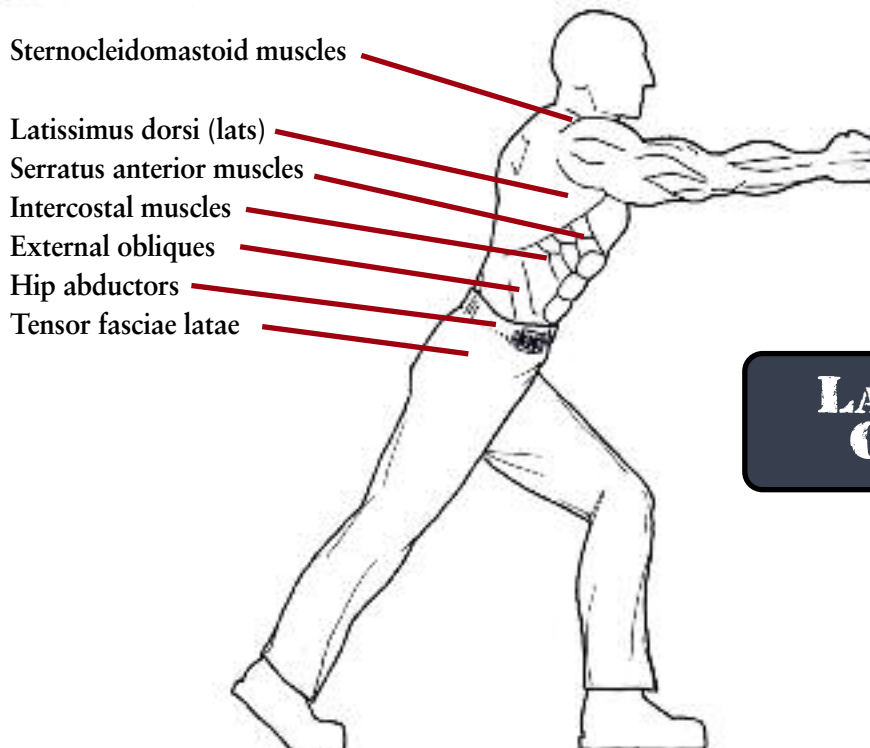
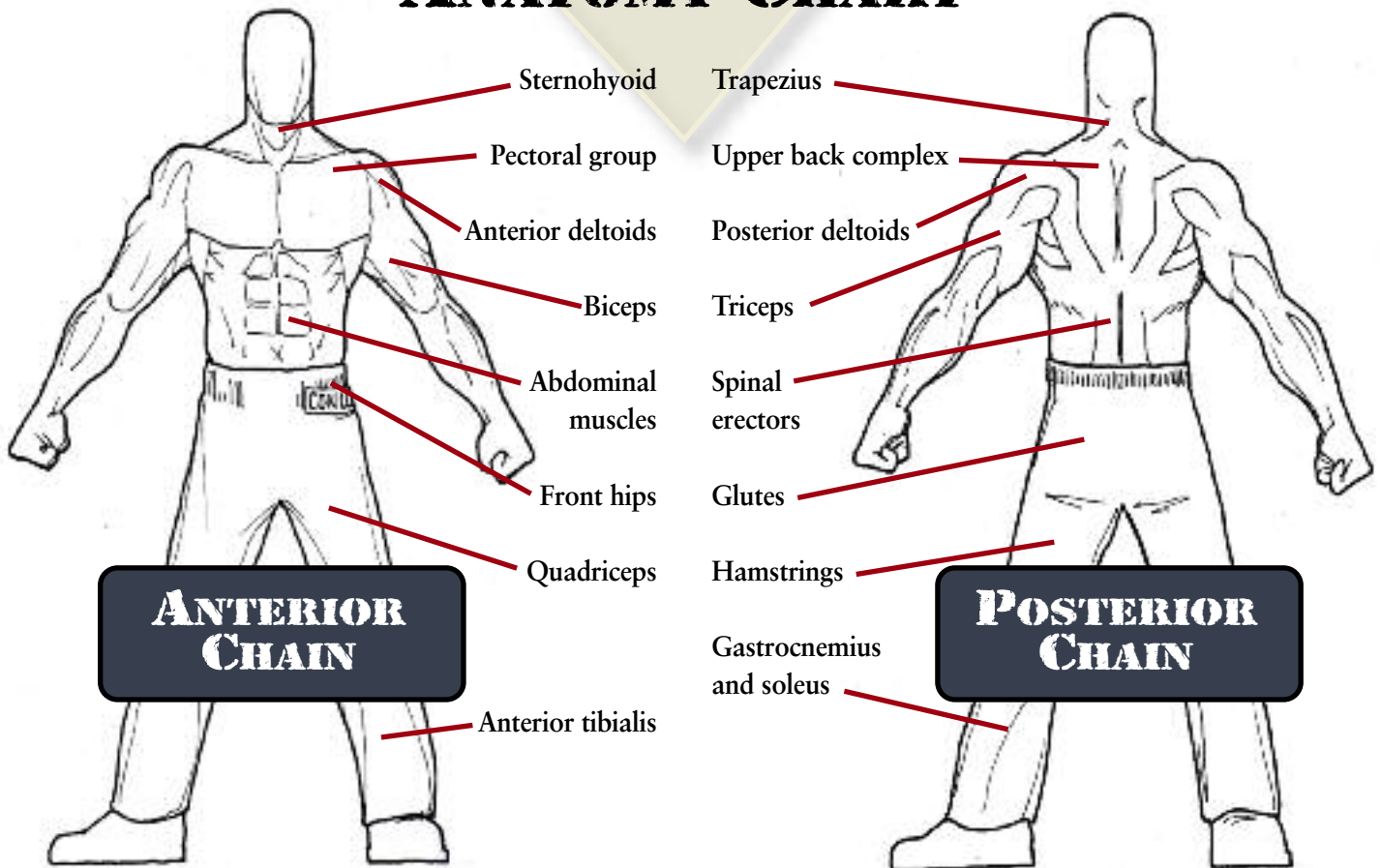
- If you want to stretch your posterior chain, you do it by contracting your anterior chain—as in an *L-hold* (also known as the *L-sit*).



- If you want to stretch your lateral chain, you do it by contracting your lateral chain on the opposite side—as in a *twist hold*.



# FUNCTIONAL TRIAD ANATOMY CHART



**LATERAL CHAIN**



## TRIFECTA CHAINS TRAINED

### BRIDGE HOLD



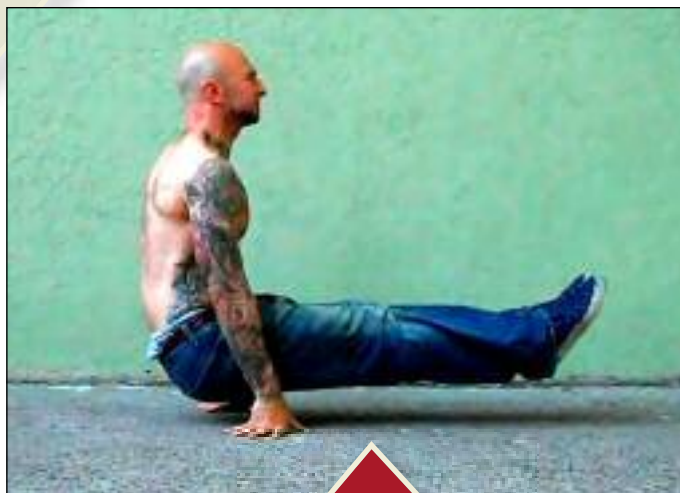
Strongly contracts the:

- POSTERIOR CHAIN

Actively stretches the:

- ANTERIOR CHAIN

### L-HOLD



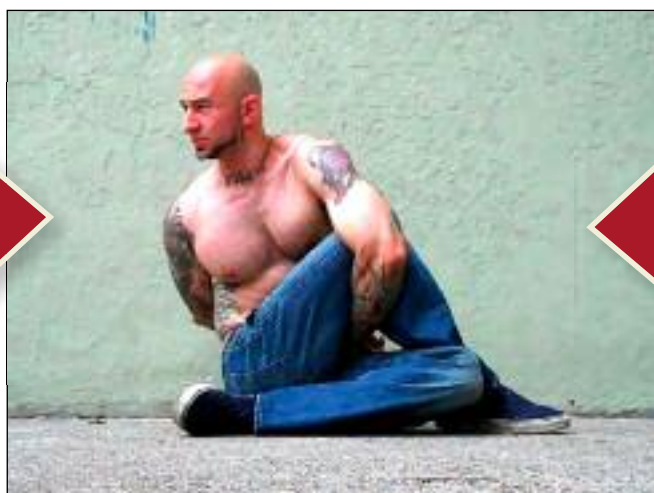
Strongly contracts the:

- ANTERIOR CHAIN

Actively stretches the:

- POSTERIOR CHAIN

### TWIST HOLD



Strongly contracts the:

- LATERAL CHAIN

(plus rotator cuff)  
On one side of the body

Actively stretches the:

- LATERAL CHAIN

(plus rotator cuff)  
On the other side of the body

These three movements form the basis of the “Trifecta”. They are like *gold*. When used together, they represent much more than a great joint training program; they really are a genuine “quick fix” for making a beaten up old body lithe, cat-like and mobile again. Even if you did nothing else—no weights, no cal, nothing—your entire body would stay young, agile, flexible and pain free just from the sensible application of these three techniques.

Don’t worry if the techniques, as I’ve shown them, are too tough for you to do right now. You can build up to them if you need to. Everyone—no matter how out of shape—can start benefiting from the Trifecta, right now. In the next chapter I’ll show you easier versions.



Some yoga masters become amazingly flexible—but that's not the goal here. The Trifecta movements are designed to "normalize" stiff connective tissue, and gently guide your joints to their ideal ROM. They aren't meant to be advanced yoga!

## The power of the Trifecta

Students of mine who have used this Trifecta have found that it works like magic. But there’s nothing paranormal about it. It’s just a refinement of every effective, powerful joint training idea I’ve picked up over the years. These three exercises build *function*, *strength* and *mobility* at the same time. This is a scary combination!

Any gymnast will tell you that this kind of training will make you stronger. This is because you have to contract your muscles *hard* to perform the Trifecta holds. If you aren’t used to bridges, try them to see what I mean. The issue isn’t so much the *weight* being lifted, but the high levels of *muscular contraction* required to perform the hold. Most people just aren’t used to contracting their muscles very hard. Like I said in the last chapter, active flexibility exercises are like a tune-up for the nervous system; because they force you to tighten your muscles as far as possible, they amplify the neural patterns which are responsible for intense muscular contraction. At the same time, the muscles on the opposite side of your body are stretched, not in an exaggerated way, but to the limits of their functional ROM. This is true of all active stretching work, but these three exercises work *entire chains* of muscles, so are much more efficient than using active stretching in isolation. The *whole system* benefits.

Because these are pretty “big” movements involving most or all of the body, your muscles have to fire strongly to keep you stabilized. This is a great way to develop the *tension-flexibility* I raved

about in chapter twelve. When you do an L-hold, your lower back stretches, but it doesn't *relax*. It's strong as iron, because the waist is a girdle and your stomach muscles are pulling hard on your vertebrae. Your back muscles *need* to fire strongly to keep your spine stable and safe. Likewise, bridging stretches your anterior chain, but the quads and waist have to stay taut to retain the position. Twists are an amazing torso exercise—do them right and all your muscles get a contractile workout. The Trifecta provides total-body “supple strength”.

The Trifecta also enhances musculo-skeletal “function”. The major reason for poor function, crummy alignment and injury in the human body is *lack of symmetry*. Some parts of the anatomy can contract well, others can't; one side has a good range of motion, the other side is stiff, and so on. These three movements eliminate that kind of dysfunction. For L-holds, one side of the body *contracts*, the other side *stretches*; the same is true for bridges and twists. This means that the ability of your antagonist muscles to stretch always matches the ability of your agonist muscles to contract. It's a yin-yang thing. Everything is in harmony. Everything is balanced. When you practice all three holds in one session, you are working your body in 3-D, and this effect is enhanced.

The rejuvenating benefits of the Trifecta go beyond simple function, strength and mobility, and into the realm of practical therapy. Because these three techniques are “holds” instead of movements, they don't build up waste products or fatigue the muscles as much as regular calisthenics. This means you can practice them every other day, every day, or sometimes even several times a day, if you are in shape. This is a perfect way to “oil” the cartilage, feed your joints and begin healing old injuries.

I could give you a lot more reasons why these three are so awesome, or why they are so powerful when applied together in a program. But the bottom line is, you have to *work with them* to really understand. You'll *feel* the results in your own body soon enough.

## Programming the Trifecta

There are lots of different ways to program the Trifecta movements. You can perform one hold a day, rotating over three days, two holds a day, and so on. I've found that working all three holds over a single session can be very effective. This works all three major muscular chains and tones and enhances function in the entire system. Feels pretty damn good, too.

## SAMPLE TRIFECTA WORKOUT

1. BRIDGE HOLD:      1 x 10 second hold  
                                  2 x 5 second holds

*By now your spine is fully warmed up and loose for the stretch that follows:*

2. L-HOLD:              4 x 5 seconds

*Your spine and hips are now pumped with blood and your joints are free.  
 A perfect time to twist:*

3. FULL TWIST:        1 x 20 seconds (per side)

*And that's your mobility work—a done deal.*

This approach isn't written in stone. The Trifecta stands a lot of tweaking; for example you could “superset” the holds, performing 5 seconds of a bridge, five seconds of an L-hold, five seconds of a twist, then repeat until you reach your desired time. There are lots of options. In the spirit of being your own coach, you should experiment and see what works for you. Here are some guidelines to help:

### **PROGRESSION:**

Most athletes will need to build up to L-holds, bridge holds and full twists. No problem. I've included progressions for each exercise in the next few chapters. Start easy and find the technique that's just right for your level of development. Find movements you can do *perfectly*. Don't struggle—remember, this is joint mobility work, not strength training!

### **INTENSITY:**

The holds should energize you—not drain you. Hold the position until you feel stimulated, not exhausted. If you push too hard, you'll get sore and you won't be able to perform the Trifecta frequently—which defeats the object. Pick easier versions rather than the hardest you can do; save the difficult stuff for your strength workouts. Never go to “failure”.

***TIMING:***

How long you hold the positions is up to you. It depends on your strength, conditioning and mobility. Less than two seconds is pointless, because the exercise ceases to be much of a “hold”. Experiment and find something that feels refreshing, even stimulating, without being tiring. A good rule of thumb is at least twenty seconds per session. This can be split into chunks. For example:

- 5 x 4 second holds
- 4 x 5 second holds
- 1 x 10 second hold  
+ 2 x 5 seconds holds
- 2 x 10 second holds
- ...and so on.

Just remember to build up to this and use “easy” holds at first. You are supposed to be “oiling” your joints, feeding them—not wearing them down.

***FREQUENCY:***

If your joints are in good shape, you can get away with performing the Trifecta twice a week along with strength training. For long-term joint training, I’d advise training three to four days per week, on non-strength training days. If you really want to iron out kinks, improve poor mobility or heal old injuries daily training is an option—but keep the holds easy to moderate rather than hard. Programming multiple daily workouts becomes a drag. You can do multiple daily sessions, but keep them spontaneous rather than planned.

***SPONTANEOUS SESSIONS:***

If you are feeling stiff, don’t be afraid to improvise an impromptu hold workout! If your back is tight, pop down and do a few L-holds. If your shoulders are dead, try some twists, and so on. You’ll feel a whole lot better afterwards. Multiple daily sessions can be a lifesaver if you are forced into being sedentary for a while—maybe stuck at a desk, or watching too much TV.

***INTEGRATED WORKOUTS:***

If you don’t want to commit a huge amount of time to the Trifecta, but want to increase your mobility anyway, you can integrate these moves into your workouts. They work great as a pre-workout warm up. More advanced guys can use them as post-workout therapy.

***SEQUENCING:***

If one of your chains is either sore or a little tight, perform the hold that *contracts* it before the hold that *stretches* it. For example, bridges contract your back—L-holds stretch your back. If your back is a little stiff, performing bridges before L-holds will heat up your spinal muscles, loosen your back and make the L-holds feel easier.



**GOING BEYOND:**

I don't believe in extreme flexibility. There's no proof that becoming a circus freak contortionist increases strength, helps the joints or improves athleticism. But there's plenty of proof that higher levels of flexibility gives you lax muscles and makes you more prone to injury. Once you've built to the bridge hold, the L-hold and the full twist hold, you have reached optimum *functional* ROM. More extreme versions of these exercises exist, but you just don't need them. Joint mobility training is not like powerlifting—more is not better.

## Lights out!

With the tips I've just given you, you should be about ready to begin training the Trifecta. You just need to find the right three holds for your current ability level. The next three chapters have every step you'll need to gain (or regain) pain free, adaptive joints with perfect mobility.

...what are you waiting for? Try 'em out now!

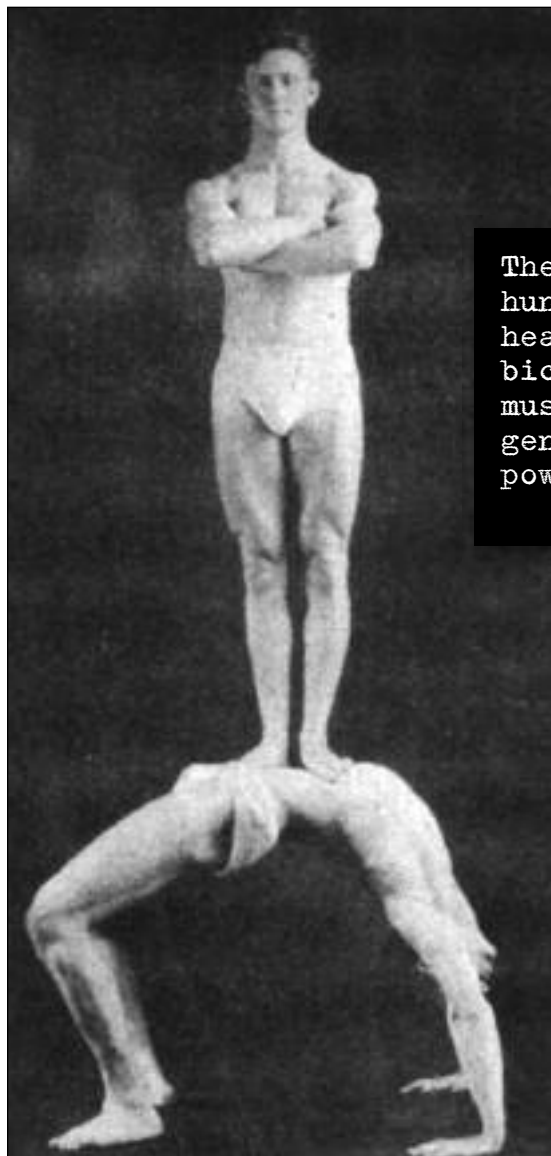
## 15: THE BRIDGE HOLD PROGRESSIONS

# THE ULTIMATE PREHAB/REHAB TECHNIQUE

**W**henever athletes ask me about building strong joints and tendons, I usually wind up telling them to how to develop supple strength. There are lots of great bodyweight exercises which build tension-flexibility in the elbows, knees, wrists, etc. But I always follow up that advice by clearly saying: *start with the spine first.*

The spine represents the deep centerline of the body-structure. It's analogous to the universal joint in a car, or the main load-bearing girders in a building. If this centerline is out of kilter—even slightly—the rest of the body is automatically out of symmetry. This includes the hips, shoulders and limbs—even the fingers and toes. This is not just a hippy-fied matter of “health” and “well-being”. Trust me, it relates directly to raw power, brutal strength and hardcore joint invulnerability. Your entire musculo-skeletal system is built around the spine. If your spine is not strong and aligned, the rest of your joints will not be strong and pain free for long. It's just not possible.

Let's face it, when most people talk about weak joints or “aches and pains”, bad backs come smack bang at the top of the complaints list. According to recent studies, 80% of Americans have some kind of back problem; and that's not just the elderly or infirm, either. It's most people. And the number one cause of all this pain and poor function? It's *weakness in the deep muscles of the spine*. When these muscles are frail, the vertebrae which make up the spine cannot stack properly. They get pulled into uncomfortable positions under load (even just gravity). This leads to bad posture. Eventually the discs become “fixed” in these weaker positions, and this leads to lop-sided locomotion and even more disproportional weakness. The end result is pain, rupture and poor movement. Athleticism is an impossibility. There's a reason why pain therapies like the Alexander Technique, the Feldenkrais Method and Pilates emphasize posture and a strengthening of the



spine. Deep strengthening exercise is the *only* way to relieve back pain and restore function. If you go to your doctor with pain, he'll throw some pain pills at you. They won't do jack s\*\*\* except poison your body and mask the symptoms temporarily.

The deep muscles of the spine are a hundred times more important for health and strength than the pecs or biceps. Modern athletes neglect these muscles, but athletes of previous generations took pride in their "back power".

Luckily, there is a permanent cure for the deep-muscle weakness that causes back pain. It's the ancient *back bridging* family of techniques. I devoted a whole chapter to these active flexibility movements in *Convict Conditioning*.

## Isometric vs dynamic bridging

In *Convict Conditioning* I focused on *dynamic bridges*—bridges where you move up and down, no different from a pushup or a squat. This dynamic style is fairly common in jails, because it's the best way to build muscle, endurance and joint strength

all in one. If you are purely interested in bridging to align your spine, strengthen your joints and refresh your discs, you don't need to bust your ass repping out on dynamic bridges. You can do *isometric* (or *static*) *bridging* instead—where you just push up into position and hold at the top. Doing this benefits the joints, but doesn't tire out the body as much—which means you can do it more often. Easier, more frequent bridge holds will increase mobility faster and "oil" the joints as I discussed in the last chapter.

## Evolving your bridging

With a little dedication even the most inflexible, screwed-up-tight bastards will be able to achieve a fairly respectable bridge hold. It shouldn't take too long. But you should start things slowly. Over the next few pages I'll outline four simple progressions to lead you to the perfect bridge. Those of you familiar with *Convict Conditioning* will recognize the logic behind these progressions.

By now you should understand that performing bridge holds for *joint health* is different from performing dynamic bridges for muscular strength and endurance. Remember:

- Aim at performing your bridge hold for 20 seconds per session (this can be broken up into multiple sets).
- Aim for *perfection* of movement—not *difficulty* of movement.
- Don't push your muscles, get sore or go to "failure".
- Joint "oiling" sessions should be energizing, not exhausting.
- Train frequently to stay mobile, but don't break your muscles down.

'Nuff said. On to the progressions.



# SHORT BRIDGE HOLD

## PERFORMANCE

Lie on your back, with your feet flat on the floor and around 6-8 inches from your butt. This is the start position. Press down through the feet, lifting the hips and back clear of the ground until only the shoulders and feet are supporting the bodyweight. At this point, your thighs and trunk should form a straight line. This is the hold position (see photo) Keep this position for the desired time, breathing as smoothly as possible. Return to the start position by slowly reversing the motion.

## EXERCISE X-RAY

The *short bridge hold* is an ideal way to begin “oiling” the hips and spinal vertebrae. Because the knees are bent, the anterior chain is gently stretched without too much strain being placed on the back. Beginning functional mobility training with short bridge holds will tone and condition the alignment muscles running up the spine and build some basic flexibility into tight stomach muscles. The knees (which are *synovial joints*) also get some gentle therapy from this hold. The perfect way to begin joint work.

Press down through the feet, lifting the hips and back clear of the ground until only the shoulders and feet are supporting the bodyweight. At this point, your thighs and trunk should form a straight line.





# STRAIGHT BRIDGE HOLD

## PERFORMANCE

Sit up straight on the ground with your legs stretched out in front of you, feet shoulder width apart. Place your palms on the floor on either side of your hips. Press down through the hands, as you simultaneously push your hips upwards until your legs and torso form a straight line. Draw the chin up and look at the ceiling. This is the hold position (see photo). Keep this position for the desired time, breathing as smoothly as possible. Return to the start position by slowly reversing the motion.

## EXERCISE X-RAY

With the *straight bridge hold*, the upper and lower limbs are made to work as struts. This begins working the deep muscles behind the shoulders, while gently stretching out the muscles at the front of the shoulders and chest. Straightening out the legs activates the leg biceps more and generates tension-flexibility in the tendons behind the knees. The straight-leg position also mobilizes the midsection better, loosening up the hip flexors, which can be notoriously stiff in strength athletes.

Press down through the hands, as you simultaneously push your hips upwards until your legs and torso form a straight line. Draw the chin up and look at the ceiling.







# ANGLED BRIDGE HOLD

## PERFORMANCE

Angled bridges require an object which is about the height of a prison bunk. Lie back on the edge of the bunk or bed with your hips clear, and your feet flat on the ground and shoulder width apart. Place your hands either side of your head, with your fingers pointing towards your feet. Press down through the hands, pushing the hips up, arching back until your head and body are entirely clear of the bunk. Look at the wall behind you. This is the hold position (see photo). Keep this position for the desired time, breathing as smoothly as possible. Return to the bunk by slowly reversing the motion.

## EXERCISE X-RAY

The *angled bridge hold* continues from where the *straight bridge hold* left off. It still contracts the posterior chain while stretching the anterior chain but with this version of the bridge the joints of the upper body really begin to gain some benefit as well. The “hands alongside head” position opens up the ribcage, gently frees up tight rotator cuffs and begins building supple strength in the wrists and elbows, which are stretched under a light load.

Place your hands either side of your head, with your fingers pointing towards your feet. Press down through the hands, pushing the hips up, arching back until your head and body are entirely clear of the bunk.





## HEAD BRIDGE HOLD

### PERFORMANCE

Lie on your back, with your feet shoulder width apart, flat on the floor and around 6-8 inches from your butt. Place the hands alongside the head, with the elbows pointing up, the palms flat on the floor with your fingers pointing towards your toes. Push the hips as high as you can, lifting the body from the floor. Keep your head in contact with the ground as you go, pivoting it back until the crown of your head is touching the floor. Remember to push up using your arms—the neck is just along for the ride. This is the hold position (see photo). Breathing smoothly during the hold. Lower yourself gently.

### EXERCISE X-RAY

The *head bridge hold* is kind of different from moving *half bridges* as detailed in *Convict Conditioning*. For this version I want you to use your head like a lever, similar to a *wrestler's bridge* (see chapter 10), but much less intense. Because your head stays in contact with the ground, this hold is less pronounced than the *full bridge hold*, and places less strain on the rotator cuffs. Head bridge holds make for a perfect transitional exercise.

Place the hands alongside the head, with the elbows pointing up, the palms flat on the floor with your fingers pointing towards your toes. Push the hips as high as you can, lifting the body from the floor.

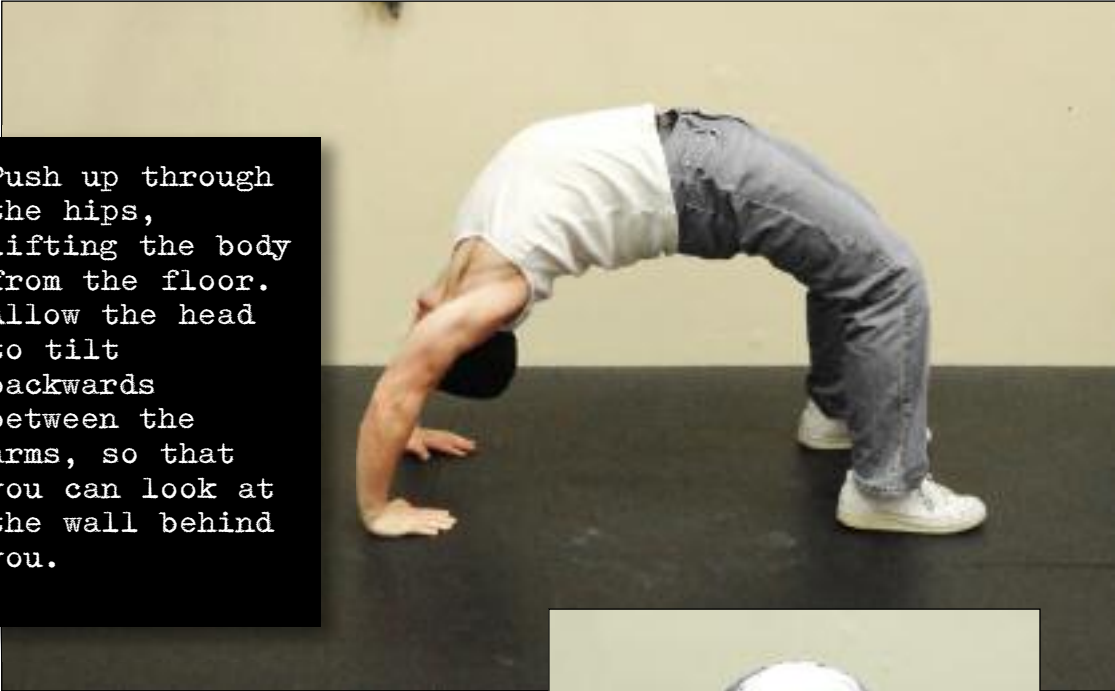





## BRIDGE HOLD

### PERFORMANCE

Lie on your back, with your feet shoulder width apart, flat on the floor and around 6-8 inches from your butt. Place the hands alongside the head, with the elbows pointing up, the palms flat on the floor with your fingers pointing towards your toes. Push up through the hips, lifting the body from the floor. Allow the head to tilt backwards between the arms, so that you can look at the wall behind you. Continue pushing through your arms and legs until your arch is as high as possible, then "set" yourself by bracing your body. This is the hold position (see photos). Keep this position for the desired time, breathing as smoothly as possible. Get down by slowly reversing the motion.

A side-view photograph of a person performing a bridge hold. They are on a dark floor, with their feet flat and arms extended upwards. Their head is tilted back, looking towards the wall behind them.

Push up through the hips, lifting the body from the floor. Allow the head to tilt backwards between the arms, so that you can look at the wall behind you.

A front-view photograph of a person in a bridge hold. Their head is tilted back, and their arms are extended downwards towards the floor, with their palms flat and fingers pointing towards their toes.

Continue pushing through your arms and legs until your arch is as high as possible, then "set" yourself by bracing your body.

## BULLETPROOF JOINTS: THE EFFECTS!

The bridge hold conveys enough benefits to fill a book! Here are just a few:

- Bridging strengthens the posterior chain. Unlike most barbell exercises, it also works the deep layer of spinal muscles. When strong, these muscles are like armor for the entire back, keeping the vertebrae correctly aligned, healing old back injuries and reducing the chance of new ones.
- Bridging also acts as powerful active stretching for the entire anterior chain; freeing up stiff hip flexors, as well as undoing “knots” in the stomach, thighs and knees.
- Many martial artists (training for high kicks) only bend forwards when stretching. This makes the back of their body flexible, while the front is tight as hell. Back bridging rebalances the body, stretching the front and offsetting any uneven flexibility.
- The backwards-rotational shoulder position will strengthen the small rotator cuff muscles within the shoulder in a way that linear weight lifting *cannot ever* accomplish.
- The muscles and connective tissue inside the shoulder girdle has a poor blood supply; this is why the area is prone to “nagging” injuries that never heal. Frequent practice of the bridge hold injects these areas with fresh blood, and increases circulation throughout the day, enhancing healing time.
- The stretched-under-load position of the arms develops excellent levels of tension-flexibility in the elbows and wrists. This “supple strength” carries over into strength training and daily activities, reducing the chances of elbow and forearm problems like tennis elbow, golfer’s elbow, carpal tunnel, etc.
- Many bodybuilders suffer from slumped shoulders, caused often by excessive bench pressing. Bridge holds pull the pectoral muscles back, curing postural problems, expanding the ribcage and increasing lung capacity.

## Going beyond?

A lot of athletes will be wondering where they are supposed to go after mastering the bridge. The answer is: Nowhere. You can find more difficult back-bending exercises—hell you can keep going till your heels touch your skull—but that won't improve joint health. If anything, it'll make you *too* loose, and ripe for an injury.

That said, I very rarely see people perform a *perfect* bridge. In a truly ideal bridge, the arms and legs are straight; and this requires muscular power and connective tissue flexibility which few people (except yoga experts or pro dancers) possess. So don't push yourself to move past the bridge hold. The bridge represents an ideal backwards range-of-motion for the spine. If you get to the stage where a perfect bridge hold becomes truly effortless, congratulations. In terms of spinal functionality, that's not a "plateau"—it's the peak of the mountain.

## Lights out!

The bridge hold will bulletproof your spine, and tune up alignment muscles other training methods just can't touch. But you don't need to rush to the full bridge hold. Go slow, go easy, practice often to keep your joints fed and oiled and be kind to your body.

Training the spine for health and function is different from hardcore strength training. Harder types of dynamic bridging—like the *stand-to-stand bridge*—don't require more flexibility than the bridge hold, but they do work the muscles of the spine and trunk a lot harder. If you want to work your back for strength, set aside one or two sessions per week to practice dynamic bridging as laid out in the first book. Keep the Trifecta for a joint-focused tune-up, not as hardcore strength work!

## 16: THE L-HOLD PROGRESSIONS

# CURE BAD HIPS AND LOW BACK— INSIDE-OUT

**J**ust like the spine which runs behind, the waist/hip girdle is another key area where modern athletes are likely to run into trouble. Everyone today is obsessed by *external* appearance—the visible thickness of the “six pack” (*rectus abdominis*) muscles. But what about the deeper, *internal* alignment muscles, such as the *psoas*, the *hip flexors*, the *iliacus*, the *transversus*? These key muscles are far more important to strength and function than the external gut muscles, but they are usually ignored—even deliberately. Pick up an “ab training special” off the newsstands, and the chances are that the writer will be telling you “secrets” for keeping the hip flexors out of your ab movements. This is madness! The external muscles are grown at the expense of the deeper, alignment muscles. And people today wonder why the modern population (and ex-athletes in particular) are plagued by hip problems: tendonitis, sciatica, osteoarthritis, and so on. How can you expect to have a strong lower body when the muscles which align your trunk and hips are out of whack? It’ll affect every move you make!

Old time physical culturists understood this importance of the deep abdomen. In their quest for huge strength and external muscle, modern Western thinkers have largely forgotten it, but in the East they still understand. Look at a kung fu master—he breathes and moves from his *center*. Bruce Lee was well versed in this way of thinking; unlike American “muscle-men” of his era, he didn’t believe that strength came from having big arms. He knew that power and function comes from the *waist*, which is why he trained his alignment muscles (hips, midsection, spine) first. The same principles hold true in Japanese martial arts. Anyone who has studied aikido or classical jujutsu will be familiar with the terms *tanden* or *hara*—a vital concept relating to the *deep center* of the body.





In Eastern physical culture, the functional center (*tanden* in Japan, *dantian* in China) is seen as the source of all physical energy. There's an anatomical-physical basis for this—the center of gravity.

Entire fighting systems are based around this concept in Japan. A lot of bulls\*\*\* has been built up around it over the years, but the original concept was not as mystical as you might think—Japanese fighters understood that strength moves outwards from the center of the body. That's why they placed the soul at the naval, and that's why a Samurai wishing to destroy himself stabs his gut. In Japan, this act is called *hara-kiri*—or “cutting the hara”.

Martial artists worth their salt understand that developing the deeper muscles of the abdomen is about more than building a great six-pack. You need to train the muscles and tendons which stabilize the trunk and legs. Crunches, isolation exercises and machine work are *out*—powerful active flexibility techniques which require holding the legs up and out are *in*. I don't care how “sexy” your belly looks. If you can't hang from an overhead bar and hold your locked legs out perfectly horizontally, the deeper muscles of your stomach and hips are weak. You need to do something about it.

## Hanging leg raises vs L-holds

*Hanging leg raises* are an ideal way to strengthen the deep muscles of the hips and gut, but they are too demanding to perform frequently—and as I explained in chapter fourteen, the synovial joints need regular “oiling” so tiring exercises are out. For the maximum bang for your buck, keep hanging leg raises in your training routine for strength and stamina, and add in some *L-holds* more frequently as part of a Trifecta program.

L-holds are an excellent little trick to throw into any “bulletproof joints” routine. Not only does focusing on the top position of the leg raise maximize contraction of the deep muscles, it also stretches out the spine and develops “supple strength” in the lower back. Because the waist muscles anchor onto the spine, the lower back has to work hard to stabilize itself during powerful anterior chain contractions—which makes L-holds an excellent, safe way of smoothly building tension-flexibility in the back, making it stronger and much more injury-proofed. You can do L-holds while hanging, but doing them off the floor is more convenient for frequent practice because it requires no equipment.

## Evolving your leg raise holds

Remember—the Trifecta is meant to be a *subjective* program, to improve subjective qualities such as the way your joints feel and respond. It’s not geared towards producing *objective* results, like strength feats. When you begin using leg raise holds, pick an exercise that feels right for you—don’t view it as just a stepping stone to the next exercise. When you just can’t *feel* the hold you are on working any more, try a harder variation.

A twenty second hold workout (broken up into several “sets”) is more than enough to stretch you out and oil the joints. If you are set upon racing through the progressions, adding more time/more sets will help. But why focus on tricks? If it’s real hardcore gut strength you want, just put more energy into your hanging leg raises!



## BENT' LEG HOLD

### PERFORMANCE

For this hold, you'll need to find a sturdy chair with some arms. (If you are in a gym, you can use parallel bars.) Grip the chair with straight (or slightly kinked) arms. Brace your upper body, and lift your knees up. At the top, your thighs should be at least parallel to the ground (see photo). Over time, as this hold gets easy, try to lift your knees higher for a better active stretch. Eventually you'll be able to pull your knees close to your chest (a *tuck hold*). Keep your feet and legs together and try to breathe normally during the hold.

### EXERCISE X-RAY

Most athletes have been trained to work their "abs" with their lower backs on the floor—as for crunches. They have been told that this takes the hips and lower back out of ab movements. Since these muscles were designed to work in unison, this method only results in physical imbalance. The *bent leg hold* functions as an excellent corrective exercise, as it not only strengthens your alignment muscles, it also begins generating tension-flexibility in the lumbar muscles, which are stretched while firing to stabilize the trunk.

Grip the chair with straight (or slightly kinked) arms. Brace your upper body, and lift your knees up. At the top, your thighs should be at least parallel to the ground.



These holds are tried and tested! Great strongman Thomas Inch practised this one over a century back.



## STRAIGHT LEG HOLD

### PERFORMANCE

For this hold, you'll need the same chair or base you used for the previous technique. Grip the chair with straight (or slightly kinked) arms. Brace your upper body, and lift your knees up. At the top, your thighs should be at least parallel to the ground (this is a *bent leg hold*). From here, straighten your legs until they are locked out straight. This may mean your feet dip down so that your legs are diagonal (see photo). That's fine—just make sure those legs are locked out. Keep your feet and legs together and breathe normally.

### EXERCISE X-RAY

Once your back and midsection have adapted to the demands of bent leg holds, it's time to take things further by straightening your legs. This is the purpose of the *straight leg hold*. Because the muscles of the posterior chain are interconnected, the stretching of the hamstrings caused by the locked out legs also increases the stretch in the lower back and waist. This increases tension-flexibility in these areas, strengthens the muscles of the hips, and prepares the athlete for the harder holds that come next.



Brace your upper body, and lift your knees up. At the top, your thighs should be at least parallel to the ground. From here, straighten your legs until they are locked out straight. This may mean your feet dip down so that your legs are diagonal.



## N-HOLD

### PERFORMANCE

There are various names for this technique, but in jail I usually heard it called an *N-hold*. (In the *L-hold* your body forms an “L” shape; in this hold it makes like a backwards “N”). Get down on the floor, with your hands by your hips. Your legs should be together, and well bent. Straighten your arms, brace your whole body and push down until your butt and feet leave the floor—only your flat hands should be in contact with the ground (see photo). If this is too difficult at first, make it easier by placing a couple of books under each palm. When this is easy, try the fists, then the palms again.

### EXERCISE X-RAY

The N-hold doesn’t look a million miles different from the *bent leg hold*, but trust me—working off the floor represents a whole new level of ability. To keep your feet and butt off the ground, your trunk has to work hard to pull the hips above the level of the palms. This is harder than it sounds, but the payoff is worth it: the harder muscular contractions build increasingly impressive supple strength in the spine, which has to stay tight to keep up.

Your legs should be together, and well bent. Straighten your arms, brace your whole body and push down until your butt and feet leave the floor—only your flat hands should be in contact with the ground.





## UNEVEN N-HOLD

### PERFORMANCE

Get down on the floor and perform an *N-hold* (see previous page). Once in the hold, straighten out one leg as far as you can—ultimately, you want to be able to lock your leg right out, while the other leg stays bent. At no point should your lower body touch the floor (see photo). Draw your leg back in, then repeat on the opposite side for the same amount of time. As you get stronger and more comfortable in this one-leg out position, slowly start extending your bent leg out as well; it's this kind of transitional experimentation which will lead you to a full *L-hold*.

### EXERCISE X-RAY

The *uneven N-hold* is a very gradual, natural way to move on from the N-hold. Straightening out one leg increases the leverage and the strength demands on the hip flexors, whilst simultaneously stretching the hamstrings and lower back. If you have committed some time reaping the benefits of the *straight leg hold* this variation should not pose much of a problem. The supple strength will be there.

Draw your leg back in, then repeat on the opposite side for the same amount of time. As you get stronger and more comfortable in this one-leg out position, slowly start extending your bent leg out as well.







## L-HOLD

### PERFORMANCE

Get down on the floor, with your hands by your hips. Your legs should be together and locked out straight, with the toes pointing upwards. Straighten your arms, brace your whole body and push down until your butt and legs leave the floor—only your flat hands should be in contact with the ground. Your legs should be at least parallel with the ground (see photo). As with all the floor holds, you can make things easier at first by pushing from books, or from the knuckles (see inset). If the *L-hold* becomes too easy, increase the stretch by slowly raising the locked legs (called a *V-hold*). Breathe normally during the hold, and keep the gut in tight (this is true for all leg raise holds).



Straighten your arms, brace your whole body and push down until your butt and legs leave the floor—only your flat hands should be in contact with the ground. Your legs should be at least parallel with the ground.

As with all the floor holds, you can make things easier at first by pushing from books, or from the knuckles.



## BULLETPROOF JOINTS: THE EFFECTS!

The L-hold is an excellent movement for promoting mobility and integrity in stiff “trouble spots” including the hips and low back:

- Most athletes stretch their posterior chain by bending forwards, or using gravity to stretch *passively*. The L-hold stretches the posterior chain *actively*, using tight muscular contraction. As a result, the L-hold builds functional range-of-motion: flexibility that can be *controlled*.
- The functional range generated by L-holds leads to more realistic, healthier, safer and stronger movement patterns.
- The lower back must retain tension during the stretch, to stabilize the hips. This builds tension-flexibility, or “supple strength”.
- Increased levels of supple strength in the low back make it much more impervious to acute injuries caused by lifting. What athlete wouldn’t want a bulletproof back?
- The L-hold tones the deep tissues of the hips, strengthening the muscles close to the bone and reducing the possibility of chronic hip pain and injury.
- The L-hold is the perfect way to open the vertebrae in the lumbar spine, allowing synovial fluid to circulate to feed and oil these joints.
- Breathe smoothly and keep the belly tucked in tight for all leg raise movements. This strengthens the *transversus* muscles, reduces the potential to develop hernia and is a cure for sagging guts.
- Using the L-hold as part of a *Trifecta* program increases blood flow and nutrient injection in the lower back area, healing inflamed tissue, old injuries and even damaged discs.
- Holding the position frequently will free up adhesions and stiffness in the hips, make the legs feel light, and free up rigid or prematurely fused vertebrae in the lower spine.

## Going beyond?

As I already suggested, if you feel the L-hold is just too easy—it's not stretching or contracting your chains enough—then just up the ante by raising your feet, while keeping the legs locked. This is the *V-hold*.



Raising your legs above parallel stretches out the posterior chain even further, and under higher levels of tension. This is true supple strength.

The L-hold and the V-hold aren't really different exercises; it's more accurate to say that the V-hold is an extension of the L-hold. Ultimately, they are extensions of the same fundamental technique, whatever you want to call it.

Once you can perform the V-hold, you have reached a point very few human beings get to—and you really don't need to push your system any further to get the joint-training benefits you're looking for. Sure you can find *harder* leg raise/abdominal movements, but remember, that's not the point. Strength is great, but the Trifecta is about regularly feeding, oiling and healing battered bodies, while gently extending and loosening up premature rigor mortis. Learning specialist gymnastics or circus tricks is cool if that's what you're into, but will it help you with these particular goals? Nope.

The movements contained in this chapter are all you'll ever need as part of a bulletproof joints program.

# Lights out!

Here's some simple math for ya:

*Low back pain + weak hips = the “curse” of modern athletes*

Sad but true. Often, these problems are seen as just being part of life; aging; overuse; or a design flaw in the human body. They are none of these things.

Modern abdominal training—those endless reps of crunches on the gym floor—are often associated with back pain and spinal discomfort. Why? Should working your abs give you back pain?

No. *Isolating* your abs will give you back pain. Many active people who experiment with Pilates for their “core” are forced to perform leg raise movements sitting down, *but with their backs off the floor*. Guess what pro athletes like Tiger Woods, Pat Cash and Curt Shilling “discovered” when they performed those movements? Their chronic back pain went away. As soon as they dropped super-popular ab isolation movements and began working their abs and back together with leg raise holds, their joints started getting stronger, more functional, and a damn sight healthier.

Don't panic. You don't need to screw around with over-complex new systems like Pilates to get the same results. Forget all the other posing and just take the active element you need—L-holds, baby.



## 17: TWIST PROGRESSIONS

# UNLEASH YOUR FUNCTIONAL 'TRIAD'

**I**f you want powerful, strong joints, there's no point just training your arms and legs. Functional movement is based on *physical alignment* and it radiates outwards from the trunk—in particular the spine, hip girdle and shoulder girdle. It's totally pointless having strong muscles anywhere on your body if these three key areas are weak.

This is something modern bodybuilders just don't understand. They train for muscular arms or thick, brawny legs, but they can't appreciate why they still suffer from chronic and acute injuries. This is because they are focusing on their *external muscles*—the showy stuff—but they have allowed the deeper, *alignment muscles* of their bodies to become weak and stiff. This is nuts. The alignment muscles are what keep the entire musculo-skeletal system where it should be for optimal health and function. It's like the foundations of a building. Growing huge external muscles on top of weak deep muscles is like building a skyscraper on top of a crummy, shallow foundation. Trouble is bound to happen!

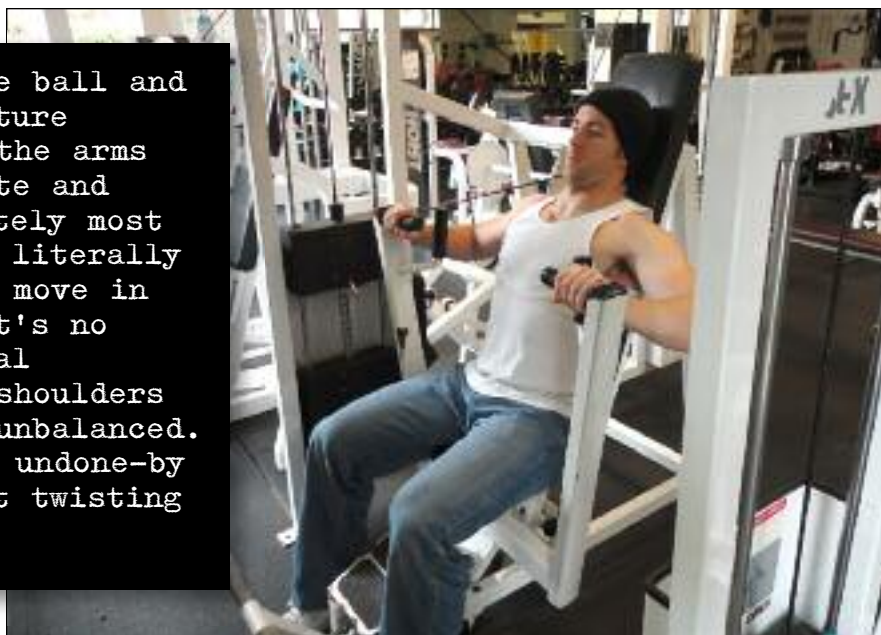
## Erase deep shoulder pain and weakness

In this part of the book, we've already discussed a weak spine (fixed by *bridge holds*) and a weak hip girdle (fixed by *L-holds*). But the shoulder girdle is another prime example of “deep” alignment muscles which most gym trainers ignore. Most lifters pack slabs of meat onto their pecs, lats and delts, around the shoulders, but the *internal* muscles—the rotator cuffs, for example—don't get any training at all. Without active flexibility work to help them, they will get irritated constantly—until they eventually give up the ghost and freeze altogether. Speak to any long-term weight-trainer, and he'll probably tell you how he's suffered some terrible, “freak” shoulder



injury. In fact, these “accidents” are nothing of the kind. If an athlete combines high levels of pressing strength with stiff, weak rotator cuffs, injury is inevitable. Unfortunately, most athletes don’t know much about active flexibility at all; and they certainly don’t know how to perform correct active flexibility work for the shoulder girdle. In their ignorance, these guys treat the deep rotator cuff like it was any other muscle—and try to work it with teeny baby dumbbells or low-power elastic cables. Endless reps with fixed weights won’t strengthen your rotator cuffs—in fact it will probably just make your shoulders more irritated over time.

Your shoulders are ball and socket joints. Nature designed them so the arms could twist, rotate and circle. Unfortunately most exercise machines literally **force** the arms to move in straight lines. It's no wonder the internal structure of the shoulders become stiff and unbalanced. The damage can be undone—by special bodyweight twisting exercises.



The finest way to train your rotator cuff is with bodyweight—active flexibility twisting exercises which gently stretch out and free up your rotator cuffs, and give them the kind of special “supple strength” I discussed in chapter twelve. Trust me, if you learn how to twist correctly, you can kiss your shoulder problems goodbye. I’ll show you how in the next couple of chapters.

## The Big Seven?

I’m gonna tell you something now. When I set down the “Big Six” of *Convict Conditioning*—pushups, squats, pullups, leg raises, bridges and HSPUs—I came damn close to adding twists to that list. That’s how much I believe in the power of twisting. Done right, twisting is great for the back, and boosts the hell out of trunk and torso flexibility—something few athletes think about much (most of them follow the lead of martial artists, and only stretch out their legs). Twists have an almost magical ability to iron out shoulder pain, plus the fact that they work the lateral chain—something I didn’t specifically include much of in the Big Six.

In the end, I didn’t add them. They aren’t really a strength exercise, and they seemed kinda out of step with the other six, which are much more old school. But none of this has changed the high esteem I have for twisting.

## Let's twist again

If you are doing *Convict Conditioning*-based workouts, you are already getting *some* of the benefits of *bridge holds* (from dynamic bridging) and *L-holds* (from leg raises). If you don't want or feel the need to perform a separate joint health/mobility program like the Trifecta, no problem. But if you take nothing else from this book, *at least add a program of twists*.

Twice a week is enough; three times is better. You can add them to your bodyweight workouts or pick a different day—but do them. The effects twists have on the body are awesome. They align the spine, free up stiff backs, heal and strengthen the rotator cuffs, and tone and stretch the sides of the body. They even stretch out the elbows and forearms in a healthy way.

So—are you ready to add twisting to your program, now and forever? Excellent, my man. You won't regret it. Over the next few pages I'll show you how.



# 'STRAIGHT' LEG 'TWIST' HOLD

## PERFORMANCE

Sit on the floor with your legs together and outstretched. Bend one leg until your foot is inside the knee of your straight leg. Keep the foot of your bent leg flat on the floor. Twist your opposite shoulder towards your bent knee, and secure the elbow on the outside of that knee. Allow the neck and head to naturally follow the turn of the torso. Place the palm of your other hand behind you, and prop yourself securely on that outstretched arm (see photo). Hold the posture for the required time, trying to breathe as normally as possible. Repeat the hold on the opposite side for the same amount of time.

## EXERCISE X-RAY

This basic twist hold should be achievable for any person without a major injury or disability. The athlete learns the basic sitting position essential for all twists, but the twist here is mild due to the natural arm positions and the straight leg. Just holding this position for a period of time is an ideal way to undo knots and stiffness in the hips, back, upper back and shoulders. As an added bonus, the biceps of the straight arm gets some flexibility work. This hold is a godsend for ultra-tight lifters who want to move on to harder twists.





## EASY 'TWIST' HOLD

### PERFORMANCE

Sit on the floor with your legs outstretched. Bend one leg and place the foot flat on the floor, to the outside of your opposite knee. Bend the other leg until your heel comes in contact with your glutes, keeping that leg on the floor. Twist your opposite shoulder towards your raised knee, and secure the elbow on the outside of that knee. Place the palm of your other hand behind you, and prop yourself securely on your outstretched arm. Allow your neck to naturally continue the twist, and look obliquely back (see photos). Hold the posture for the required period, trying to breathe as normally as possible. Repeat the hold on the opposite side for the same amount of time.

### EXERCISE X-RAY

This hold is slightly harder than the last. Bending the leg and moving it inwards will stretch the muscles running up the thigh and hip (*quads*, *tensor* muscles, *gluteus medius*, etc.). Since all the muscles of the lateral chain are interconnected (hence the term *chain*), this increases the stretch higher up. With this stretch, the waist, upper spine and shoulders begin to feel the benefit. Remember to keep the stretch *strength-led*—don't force anything.







## HALF 'TWIST' HOLD

### PERFORMANCE

Sit on the floor with your legs outstretched. Bend one leg and place the foot flat on the floor, to the outside of your opposite knee. Bend the other leg until your heel comes in contact with your glutes, keeping that leg on the floor. Twist your opposite shoulder towards your raised knee, and slide your hand down your outer calf, so that it runs parallel to your shin until the fingers touch your instep. Place the palm of your other hand behind you, and prop yourself securely on your outstretched arm. Rotate your neck to look behind you (see main photo). Hold the posture for the required time, trying to breathe as normally as possible. Repeat the hold on the opposite side.

### EXERCISE X-RAY

I consider this a halfway point for athletes looking to master the *full twist*—if you can hold this for 1-20 seconds while breathing smoothly, you're halfway there. The arm-along-leg position requires a strong twist from a flexible spine—you're starting to make progress. The neck is also worked now. If this standard version becomes easy, you can anticipate the next step by taking your rearmost hand from the floor and looping it around your torso.





## 3/4 'TWIST' HOLD

### PERFORMANCE

For this exercise you need an object—anything about a foot long (a hand towel is a perfect option). Sit on the floor with your legs outstretched. Now perform the *half twist hold* (see page 216). The hand of the arm alongside the shin should be holding the towel. Once alongside your shin, push the hand holding the towel back and under the elbow. Reach around your body with the other hand, and try to grab hold of the towel. This may take some practice at first. Once you grab the towel, rotate your neck to look behind you (see photos). Hold the posture for the required time, trying to breathe as normally as possible. Repeat the hold on the opposite side.

### EXERCISE X-RAY

In terms of difficulty, this hold lies somewhere between the *half twist hold* and the *full twist hold*. Previously, the rear arm has been in contact with the floor, but now it snakes its way around the trunk. This forces the athlete to twist harder, and stretches the shoulder girdle and lateral chain further than ever. Progression is simple as pie—try to inch the fingers closer each time things feel easy. Impossible as it might seem, one day they'll touch!







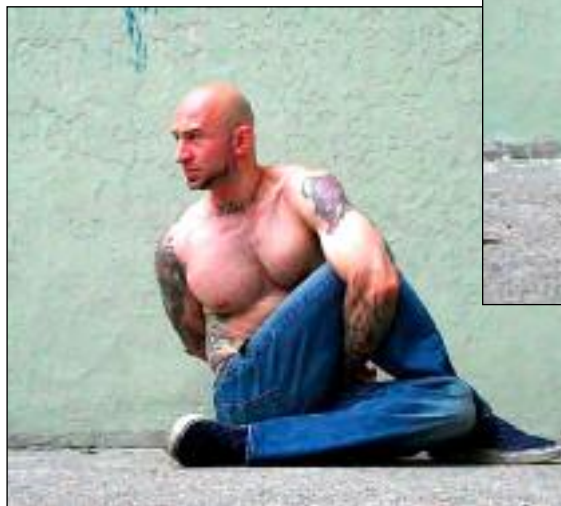
## FULL 'TWIST' HOLD

### PERFORMANCE

Sit on the floor with your legs outstretched. Bend one leg and place the foot flat on the floor, to the outside of your opposite knee. Bend the other leg until your heel comes in contact with your glutes, keeping that leg on the floor. Twist your opposite shoulder towards your raised knee, and push the hand of that shoulder holding back and under the elbow. Reach around your body with the other hand, and touch fingers. Hook the fingers, or lock them in a “monkey grip” (see top photo). Lift your chest, and rotate your neck to look behind you (see bottom photo). Hold the posture for the required time, trying to breathe as normally as possible. Repeat the hold on the opposite side.

### EXERCISE X-RAY

This hold should be considered the advanced template for all twist-stretching. Anyone who attains it will be more functionally flexible than the next hundred athletes. If you feel the need, you can move past this stretch by gripping further than the fingers. Be warned that, beyond this point, every extra inch of reach is exponentially harder to attain. I got to the point where I could grasp my wrist instead of my hand, but it took a solid year of work.



## BULLETPROOF JOINTS: THE EFFECTS!

Bodyweight twists are an excellent candidate for the “ultimate” in active stretching exercises—particularly for strength athletes. Reasons why include:

- Many athletes train to move their bodies up-and-down, and front-and-back: but how many train to *rotate*? Twists take care of this “missing link” in most training programs, increasing flexibility and strength in the deep muscles responsible for rotation.
- The unique arm/shoulder socket position of harder twists stretches and tones the *rotator cuff* from the inside out, without need for weights, cables or other equipment. This deep stimulation frees up the shoulders and radically improves mobility. It increases blood flow, enhances healing, cures old injuries and eliminates nagging shoulder pain—for good.
- Over time, consistent performance of the full twist will break up calcium deposits in the shoulder, and even eliminate painful spurs.
- Twisting is the best way to safely work the *internal oblique* muscles. When combined with an exercise for the *external obliques*—such as human flag training—you have a perfect oblique program.
- Many athletes suffer from upper back pain because they hold on to excess tension in the muscles between the shoulder blades (heavy rowing and curling doesn’t help). Twists actively release the shoulder blades in the most efficient way possible, dissipating tightness in the deepest layers of upper back muscle and fascia.
- Deep twisting massages the internal organs, keeps them healthy, and even aids digestion.
- When done right, twists reverse stiffness and damage done to the hips and back caused by misuse or underuse, helping to prevent hip cramps and backache. Because hip twisting is key to so many sports (think punching, kicking, batting, throwing, etc.), even a short course of twists will improve athleticism and sports performance.