

## Program Design for Beginner Women – The Basics

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Evidence is accumulating that weight training is good for everyone. It helps you play sports better; helps maintain muscle mass, functional strength and bone density lost through aging; assists in the rehabilitation of injuries; improves insulin resistance and fat loss; and of course, builds a pleasing physique for both men and women of any age.

### Yes, Weight Training is for Women; No, You Won't Get Too Big

A lot of women are turned off by weight training because big bodybuilders are the “public face” of people who weight train. So, women think, “If I start weight training, I'm going to look like that.” This situation isn't helped by well meaning but misguided people who offer their “advice” on how to look “feminine”.

Let's get something straight: you aren't going to get huge by mistake, no matter how heavy you lift. There are a few reasons for this.

1. Most women do not naturally have the levels of androgens (so-called “male hormones”) necessary to add significant mass. They have a little, but much less than the average man.
2. Muscle gain is a slow, slow process. At the very best, and as a beginner, you might add a pound or two a month. Yes, a pound a month. Go to the supermarket and grab a one-pound steak. That's what you'll add if you're very very good. Then grab a single burger. That's what you're more likely to add, all over your body. Mmm burgers.
3. Professional bodybuilders are typically drug-assisted with freakish genetics, rigid diets, and unwavering dedication to hours of daily training. They're like any other elite athlete, which means that their physical makeup and training are highly unusual. You're not going to knock off a Kenyan marathoner's time as a recreational runner, right? Trust me; if you were destined for Olympic glory, you'd know by now.

So don't worry about waking up enormous one day. I've been trying for years and guess what? I lost fifty pounds instead and ended up a mighty 108. I do have these strange bumps on my tummy though – I think they're called abs.

### Weight Training is for Everyone

Over my time as a trainer I have created weight programs all kinds of people, including:

- An 85-year old heart patient (and yes, I made him squat!)
- A man in a wheelchair with a degenerative neurological disease
- A man who was in a hospital bed following a heart attack
- A middle-aged woman with chronic fatigue
- A teenager whose only weights were his bedroom furniture
- A variety of athletes including cyclists, runners, rowers, rock climbers, wrestlers, martial artists, soccer players, belly dancers, and two competitive female boxers who go by the names of Tank and Machine – eek!

Everyone has different goals, needs, limitations, and abilities. Your results will depend on how much effort you put into it, your own physical structure, and your age and gender. Nobody is too old, too young, too fat, too skinny, too *anything*, to train with resistance. Everyone, as long as they can move a single finger, can weight train. It's just that what “weight” means, and how the training is done, is different for different people. And finally, everyone can and will get stronger and fitter from a consistent, appropriate, regularly performed program of resistance training exercise. Period.

Now, the fact that a training program has to be individualized does *not* mean that women need special pink-coloured exercises. Your age, ability, other activities, and goals, are much, much more important

than your gender in determining how you should train. A male and female middle-aged beginner have more in common with one another than an 18-year-old female varsity athlete and an obese sedentary older woman.

### **What is fitness?**

Entire books have been written on this particular, rather existential, question, but let me discuss it briefly. When I ask my clients to think of someone fit, everyone seems to think of an emaciated ultramarathoner or a so-called “fitness model”. They imagine “fitness” as represented by a very lean, somewhat extremist person who is a superathlete, or a young woman in a bikini and high heels.

Fitness is not a size or a shape or a look. It is an attitude, a set of cultivated abilities, and a lifestyle. Fitness, more literally, is the “power to do”, and represents how well-suited you are for your chosen activity. Someone who is “fit” as a sprinter may not be “fit” for being a distance runner, even though both types of runners may be in peak physical condition. Fitness is about how well you manage the challenges that life presents you with – whether that’s the rigours of daily life, or the rules of your chosen sport. So consider – why are you training? What do you want to be fit to do? Go hiking? Climb stairs? Open jars? Fit into that pair of high school jeans? (in my case, since they were acid washed, not such a hot idea)

If you’re stumped for ideas here, take the advice that former IFBB bodybuilder Lisa Bavington gave a beginner one day: just get into the best shape you possibly can, and let the chips fall where they may. This program will give you a little bit of everything, and as you get better, you can tweak it according to your needs, interests, and individual requirements.

### **Understand How Your Body Gets Around**

It can be intimidating to start a program. Where do you begin with all the heavy stuff? How do you lift it without hurting yourself or angering the giant guys grunting in the gym corners? Many folks gravitate to the machines for this reason. Recently I was at a training session with a man who said he’d been inactive for thirty years. I explained to him that weight training was easy in theory: you just think about movements that your body naturally does, and then figure out how to add resistance to them. “I don’t know how my body naturally moves any more,” he said, “I’m so out of practice”. This got me thinking that in order to start weight training, you need to understand the basics of how your body gets around.

### **Body Movement 101**

There are some basic movements that we all do every day. They can be broken up into a few groups. And notice that very few of them involve sitting in a machine that immobilizes you – most involve moving freely in three-dimensional space, often unstably or using one arm or leg.

1. Squatting type movements. These happen when we do things like get out of a chair, hunker down to look at something on the ground, or squat down to pick up a child. They also happen with one leg at a time when we walk up stairs.
2. Pushing type movements. This includes pushing overhead (such as putting something on a high shelf); pushing forward (such as pushing a car door shut); and pushing down (such as pushing down on a chair’s armrests to get out).
3. Pulling type movements. This includes pulling down from overhead (such as reaching up to pull down the garage door), pulling things toward us (such as opening a door), or pulling up (such as shrugging up a heavy suitcase).
4. Midsection stabilization. Ever notice how most of your midsection is just squashy stuff without any bones to support it? Well, a lot of muscles have to work to make sure you don’t fold up like a wet pillow, and also that you can bend, twist, and move loads around.

Most weight training exercises are these four types of movements. Movements like these are complex, but generally involve three key features:

- One group of muscles is doing most of the work (aka prime movers);
- One group of muscles is relaxing so that the first group can do its job (aka antagonists);
- A third group is stabilizing the rest of the body.

Depending on the movement, muscles can be any of these three things. For example, when you press overhead while standing, your lower body and midsection are working as stabilizers while shoulders and triceps are prime movers; but when you do a squat, your thighs and hips are working as the prime movers. Ideally, you want to get as many of these little guys involved as possible.

### **Train Your Body as an Integrated System**

The first rule of starting weight training, then, is to train movements, not muscles. The body acts like an integrated system, not a series of parts that all happen to be together in the same place. The body is designed to work together. Its parts are team players, not a collection of prima donnas who are constantly vying for their place on centre stage. The body doesn't think, "OK, I have to pick up those groceries from my car trunk, so I guess I'll let the forearm flexors grab the bags, and then I'll blast the biceps when I pull the bags out.." It's thinking, "Must. Get. Bags." in a sort of Frankenstein voice. It finds the goal, then it figures out a way to accomplish the goal by having all the parts work together. If it can't do something one way, then it figures out another way. It's very adaptable, that body of yours.

What this means is that you shouldn't worry too much about focusing on "hitting the biceps" or "blasting the triceps". This can lead to doing a lot of unnecessary and time-wasting little exercises that don't give you as much bang for your buck. Instead, do a collection of basic, complex movements, especially those that reflect your real-life demands for function (and sports if you do them), and let the body sort out which muscles will do what.

Although each movement is like a mini-symphony of muscles, all activities nevertheless have a few soloists and some backup players. Muscles have one-track minds: they contract. That's their only job, and they only do it one way. Different movements are possible because of a complicated coordination by the brain and nervous system, acting like the conductor.

### **3 Types of Muscle Roles**

1. Agonists. Agonists, or prime movers, are the muscles that provide the main drive for that particular motion. In the theatrical production, the agonists are the heroes, if only for that moment. For instance, during a biceps curl, the biceps are the agonists.

2. Antagonists. Antagonists, like their name, are muscles that do the opposite of what the agonists do. They're like the super villains. Antagonists have to relax in order for the agonists to work. So, using our example above, the triceps are the antagonists during a biceps curl. If you can't relax the triceps while curling the weight with the biceps, you're going to do some damage.

3. Stabilizers. Stabilizers hold the body in the proper position and help stabilize the movement. They are the supporting cast of characters: the wacky best friend, the extras in the background, the walk-ons, and the Bob Hope cameos. You'll often hear people say "This exercise works your stabilizer muscles", as if "stabilizers" are a particular kind of muscle. While some muscles, such as the deep abdominal/spinal muscles, are more likely to get that job than others, the stabilizer role is assigned depending on what the movement actually does. In the case of the biceps curl, stabilizers might include the shoulders, forearms, midsection, and even the legs if you're standing.

## The Role of Connective Tissues

Along with muscles, connective tissues (such as tendons and ligaments) play a role, acting like stiff elastic bands to hold joints together, attach muscles to bone, and provide a little bit of bouncy elastic energy for movements. For instance, when you jump, you're using your leg muscles but you're also using the elastic energy stored in your tendons.

The point of telling you all this is to explain that because of the way this complicated symphony works, you will see the most results when you pick movements that get as many instruments playing at once.

So what to do with all these moving body parts? You'll often hear people say, "You have to do X exercise with Y reps at Z weight if you want to grow muscle." It's not really that complicated. Here are some beginner tips, which you'll notice I've cleverly incorporated into the program that follows this introduction.

1. Start slow and have realistic expectations. Do your homework, learn proper exercise technique, and familiarize yourself with the gym space and equipment. While there are lots of "8-weeks-to-a-better-bod" programs out there, in the real world exercise is a lifetime project.
2. Progress is guaranteed. Beginners will make progress regardless of what program they choose. They don't have to lift heavy for the first six to 12 months – they can see strength gains using as little as one-third of their max.
3. Use light weights and lots of reps when you're starting out. Keep the weights relatively light and the reps relatively high – in the range of 12 to 15 reps per set, two or three sets per exercise. This helps practice good technique, and helps condition that springy connective tissue, which matures much more slowly than muscles and needs a little extra attention in the early stages. After 6 to 12 months of training, most folks are ready for heavier loads. If you're older or starting out quite sedentary, don't be afraid to give yourself a little extra time.
4. Choose basic movements. Pick good, basic movements such as the pulls, presses, and squats. Try to select movements that use as many body parts as possible, and remember that one of your goals is function and integration.
5. Go for quality over quantity. You don't need to spend two hours on your weights workouts. Thirty to 45 minutes of a handful of well-chosen exercises is quite enough.
6. Avoid muscle failure. Don't take any weight sets to failure intentionally. Always leave a few reps left "in the tank" on each set. This will help you recover quickly from workouts, and reduce your risk of beginner injury.
7. a) Stay away from machines. Use free weights and natural movements. Try to stay away from machines that constrain most of your body and lock you into a prescribed track. This isn't how the body normally moves. Remember, free weights come in every size from teeny to huge, so you don't have to start with 300 lbs immediately. Even a can of soup counts as a free weight. Often, as in the case of exercises like squats and push ups, you can simply begin using only your own body weight.  
b) However, a few machines such as the cable stack, calf raise, and assisted pullup machine, can come in handy.
8. Avoid pain. If you feel pain, stop or modify the movement so that you don't.
9. Start with three sessions per week. This is a good beginner frequency. As you gain experience, you can add to the workload, but take it slowly and don't get overenthusiastic too soon.
10. It's normal to feel sore. You will be sore and walking like a penguin after your first set of squats. Just get through it, and you'll be fine!

11. Whatever your other goals, consider the importance of two things: caring for your insides as well as your outsides; and optimizing your body's natural ability to move efficiently. With these two principles guiding a program, it's harder to go wrong than just thinking "I wanna get in shape".

### **Chick Stuff**

Since this routine is by a woman for women, a few items specific to women's training bear mention.

- Don't sell yourself short. You can do a lot more than you think you can. It just takes time and consistent application, but you can and will surprise yourself.
- Don't waste your time with "sculpting", "toning", or "firming" exercises. One squat is worth a hundred leg lifts.
- You are likely to find that your lower body is stronger than your upper body. Give the upper body a little extra work now and again to compensate. Or revel in the lower body might. Your choice. It's normal, is all I'm sayin'.
- You are likely to find that your hips are wider and your shoulders narrower than the average man's. This may affect which squat and deadlift stances you find comfortable (generally wider foot placement with toes turned out is preferable, but your mileage may vary), as well as chosen grips on exercises such as pulldowns.
- You may notice changes in your strength and energy throughout your menstrual cycle. It's normal; just get to know it and schedule a lighter workout when you know you're not 100%. Some evidence suggests that there is a slightly higher risk of joint injury at particular times in the cycle, most likely just before your period, as hormones relax the connective tissue. No need to worry about this; just be aware and plan your mighty all-out efforts for another day.
- Chest training will not affect the size or shape of your breasts. Breasts are made of bodyfat and glandular tissue. The way they look depends on your age, genetics, gravity, and whether you've had children and/or surgery. If you lose bodyfat, they may shrink, but to what degree this happens will depend on your natural boobage.
- If you do have naturally larger breasts, consider some extra midback pulling work (such as rows) and external shoulder rotation to balance off the weight pulling forward on your thoracic spine. Also be aware that you may have some postural habits that cause you to slump (many women unconsciously hunch forward if breasts are larger), which may mean your internal shoulder rotators are tight and your head carried forward as well. This also goes for desk workers.
- If you have had children, you may notice some laxity in the lower abdominal area and separation along the midline. How well you can re-establish muscle strength in this area depends on how much damage your pregnancy(ies) might have caused.
- If you wear high heels and/or do desk work, you may be susceptible to shortened calf muscles, anterior pelvic tilt (with an exaggerated arch in the low back), and tight hip flexors (the front of the hip). This not only aggravates low back problems but can give the illusion of a pot belly in otherwise lean women. Be sure to stretch calves, hamstrings, and front of hip well.
- Women's joints are, on average, more lax than men's. Don't go nuts with the flexibility training, especially in training flexion of the lumbar spine. Young female athletes in particular are prone to spinal damage as a result of hypermobility and frequent hyperextension of the spine (a condition known as spondylosis/spondylolesthesis). Similarly, women who play sports involving running and jumping are prone to knee injuries. A loose joint is not necessarily a healthy or less injury-prone joint; you actually want some springy tightness there to hold things together.

On to the workout!

## How I Put this Workout Together

Everyone starts in a different place. A “beginner” can be someone who is active, but new to weights. Or it can be someone who has been sedentary for a long time prior to starting an exercise program. So, I’ve included lots of options depending on where you feel comfortable beginning.

The list of exercises in the spreadsheet can be read as follows.

<b>PUSHING EXERCISES</b>		<b>Type</b>	
<b>Exercise</b>			<b>Goal</b>
Pushup	<b>Name</b>		
Level 1 wall pushup (BW)		<b>Level</b>	12-15 reps/set
Level 2 counter pushup (BW)			12-15 reps/set
Level 3 stair pushup (BW)			12-15 reps/set
Level 4 floor pushup (BW)			As many as possible per set
Level 5 elevated feet pushup (BW)			As many as possible per set

“Exercise” refers to the name of the exercise. Some exercises have more than one level. For instance, there are many levels of pushups, ranging from easiest (wall pushups) to hardest (elevated feet pushups). Once you can complete the goal with good technique, you can feel free to move on to the next level. So, for instance, once you can do 2 or 3 sets of 15 wall pushups easily, move on to counter pushups. There aren’t any rules about speed here – take as long as you need to complete each stage. Maybe you can jump right in to floor pushups; maybe you need to start with hands on the counter. Start at the lowest level and use trial and error for the first few weeks until you get the hang of it.

"Goal" indicates how to measure each exercise, e.g. in reps, or time (e.g. 30 to 60 sec of exercise X), and what to shoot for so you know you’re progressing.

Exercises are colour-coded by type:

### **PUSHING EXERCISES**

### **PULLING EXERCISES**

### **SQUATTING EXERCISES**

### **MIDSECTION**

The exercises above are the types of exercises I listed earlier. These are the bread and butter of your workout.

### **FULL BODY EXERCISES**

These types of exercises are the “bang for your buck” exercises. They get just about everything from head to toe. Great for interval training too, if you use long sets (20 reps or more). I’ve listed these as starting off the workout but feel free to finish off with them, or just do one whole workout of them.

## **FLEXIBILITY/YOGA**

These types of movements are optional and what you choose to do is up to you. Some folks enjoy yoga as a complement to weight training. Others need specific stretches for rehab, injury prevention, and/or other sports. And some folks just like to stretch! Where possible, use “active” or moving stretches rather than “static” or stretch-and-hold stretches.

Active flexibility can be as simple as going through the weights movements with no weights, moving arms in circles, etc. This can be used as a warmup.

But save most flexibility work after weights if doing it in the same workout. If you do it before weights (eg. yoga in am, weights in pm), make sure to leave a couple of hours in between. Static stretching diminishes power output of muscles for at least an hour afterwards.

## **INTERVAL CARDIO**

This is the best form of cardio for fat loss and overall conditioning. The principle is very simple: alternate brief periods of very high intensity with periods of low intensity.

High intensity periods should be 10-30 seconds; low intensity periods 30-60 seconds. Aim for 20 min and really make that high intensity high -- the equivalent of sprinting. High intensity should be a maximal or near-maximal effort like a crazy guy with an axe is chasing you. Low intensity is about the equivalent of walking as if a 105 year old guy with an axe is shuffling after you using a walker while dragging an oxygen tank.

You can use any type of cardio you like for this, as long as you follow the sprint-walk concept for the chosen exercise: hill or stair runs, elliptical, rowing machine, cycling, punching a heavy bag, skipping rope, etc. Also see full body exercises. You can do something like a set of swings alternated with 30 seconds of rope jumping, etc.

If you're new to cardio in general, start small and slow. Gradually build up intensity and duration. Even five minutes of this stuff is heavy duty if you're not used to it. If you've been quite sedentary, try something like alternating hill walking, or very brisk walking, with moderate level ground walking. Progress to hill jogs then hill runs over time.

## **ACTIVE RECOVERY**

This is “general purpose activity” aimed at helping you recover while still getting you moving around a bit. You'll recover faster with a little gentle movement than you will with just lying around. Active recovery can be moderate cardio (swimming and walking are good) or even another moderate activity you enjoy doing.

The workout is a template - fill in the exercises as desired.

Day 4		Date:		
Exercise		Sets	Reps/weight	
1 full body	Type - choose 1 per workout from list	1 to 2	Goal	
1 squat		2 to 3		
1 pull		2 to 3		Record weight used and reps completed
1 push		2 to 3		
1 midsection		1 to 2		
Yoga or stretching as desired				

Make sure to pick a fairly good variety of exercises throughout the week, but not so many that you can't keep track. Strive for improvement in chosen exercises, either in reps per set, or number of sets completed in the time allotment, or the weight used (pick one element to improve per workout - don't try to increase weight AND reps at the same time, for instance).

Pick 1 exercise from the list corresponding to each category (squat, push, pull) for each workout. Rest as needed but as little as possible (30-60 seconds, up to 2 min for squat/deadlift sets). Weight should be heavyish but manageable. Do not allow form to degrade - if it does, lower the weight. Do not go intentionally to failure - always leave a rep or two left in the tank on each set.

For midsection exercises, make sure to cover flexion, rotation, and extension well over the course of a week (i.e. crunching movements, bending movements, and back arching movements along with "hold" movements like the plank). For rotational exercises, focus on rotational stability: keeping torso like a "block" while turning from the hips. Avoid twisting exercises where the rotation comes from only the waist.

## Notes and Exercise Descriptions

### **PUSHING EXERCISES**

#### **Pushups**

##### **Level 1 wall pushup (BW)**

Stand facing a wall. The farther away your feet are from the wall, the harder the pushup will be. Place palms on the wall, just below your shoulders, a bit wider than shoulders. Keeping body rigid in a straight line, lean in towards the wall.

##### **Level 2 counter pushup (BW)**

Place palms on a sturdy ledge, just below your shoulders, a bit wider than shoulders. Keeping body rigid in a straight line, lean in towards the ledge. If this bothers your shoulders, try adjusting your hand position so your palms are slightly narrower, slightly farther down your body, and your upper arms aren't so flared out.

##### **Level 3 stair pushup (BW)**

Stand facing a staircase and place hands on about the fourth step. Perform a pushup as normal. As you get stronger, work your way down the staircase. Just watch your face on the way down!

##### **Level 4 floor pushup (BW)**

The classic basic pushup. Begin with body straight and rigid. Palms are slightly wider than shoulder width. Body stays straight through the movement. Descend until elbows are bent approximately 90 degrees, then straighten arms and return to starting position.

##### **Level 5 elevated feet pushup (BW)**

Perform a regular basic pushup with your feet elevated on something. You can start with a low elevation, such as a Reebok step with no additional treads on it, or simply the bottom step of a staircase. If you're in bare feet, you're on your toes. If you're in running shoes, you're on the tips of your toes. You are not on the tops of your feet. Hand position is the same as for the earlier stages, though you may find that moving your hands down your body a little is more comfortable as the angle changes. There is a much higher risk of midsection sag with these, so really remember to keep torso muscles nice and tight, and body in a rigid straight line, throughout.

##### **Seated incline press (D)**

Adjust an incline bench so that the back is set at around 45 to 60 degrees. Grab two dumbbells and sit down with the dumbbells on your lap. Lean back, and raise the dumbbells to shoulder height. Palms can be facing forward or facing one another, your choice. This is your start position. In a smooth motion, press the hands upwards, finishing with arms straight.

##### **Standing overhead press (BD)**

Hold dumbbells at shoulder height, or a barbell at shoulder height in front of you. If using dumbbells, palms can be facing forward or facing one another. This is your start position. In a smooth motion, press the hands upwards, finishing with arms straight.

##### **Lying dumbbell press (D)**

Grab two dumbbells and sit down on a flat bench with the dumbbells on your lap. Lean back, lie down, and bring the dumbbells to your shoulders. This is your start position. In a smooth motion, press the hands towards the ceiling, finishing with arms straight. Not recommended for people with shoulder problems, or if it causes shoulder pain.

### **PULLING EXERCISES**

##### **Seated cable row (C, M)**

Sit at a seated cable row station or on a hammer strength machine. Sit upright with good posture, looking forward (take a deep breath – this will help you sit up properly). Grab the handles. Pull the handles back towards your bellybutton, pushing the chest out as the hands come back. Think

about squeezing a penny between your shoulder blades as you row back. Return the handles to the start position without allowing the back to hunch – keep that good posture throughout the set.

You can also do these one-handed if you prefer.

## **Pullups/pulldowns**

### **Level 1 seated pulldowns (C)**

Sit at a pulldown station. I recommend a shoulder width overhand, underhand, or palms facing grip. A wide overhand grip is uncomfortable for many people, but if you like it, feel free to use it. Begin with arms straight, holding the handle overhead. Pull handle down smoothly to your chest, pushing your chest up and out to meet it.

### **Level 2 standing pulldowns (C)**

Stand behind the pulldown machine's seat if you're using the lat pulldown station, facing the stack. Reach up and grab the handle. Squat down slightly, bending at knees and hips. Pull the handle or bar to your chest as you normally would. You don't even need to use the lat pulldown station; you could use any cable station that allows a handle to be attached at the top. Do these one-handed for a little extra zing.

### **Level 3A machine-assisted pullups (M)**

The assisted pullup machine (sometimes known as the Gravitron) has the advantage of providing progressively declining resistance. For example, you can begin with pulling up only 40% of your body weight and progressing in 5 or 10% intervals gradually towards your goal. If you have one in your gym, use it if you like. Or do 3B instead.

### **Level 3B (alternate) assisted pullups (BW)**

If you don't have an assisted pullup machine, or if you feel like going low-tech, do the assisted pullup using a Smith machine bar or a barbell placed in a squat cage or rack. Set the bar up at approximately chest height. Push a bench in front of the cage or Smith machine. Sit down in the cage and reach up to grab the bar, then put your feet on the bench. Your body is now in a sort of "L" shape. The bench will support some of your lower body weight so that you aren't pulling up quite so much. The more of your legs that are supported by the bench, the more assistance you'll get. Pull up like a normal pullup.

### **Level 4 negative pullups (BW)**

This involves the same use of the Smith machine as in Step 2. Or you can use a regular bar; it's just easier to do when the bar is a little lower. A negative pullup eliminates the pulling up part of the rep, which is the hardest part, and just focuses on the lowering down part, which is easier. The "negative" refers to the negative part of the rep, also known as the eccentric portion. Thus, instead of focusing on pulling up (known as the "positive" or "concentric" portion of the rep), you focus on slowly resisting gravity on the way down.

Start by grabbing the bar with your desired grip. Jump up to the top position of a pullup, with arms fully bent and chin over the bar. That's the starting position. Then, lower yourself down as slowly as possible. Try for a slow 3 or 4 count per negative.

### **Level 5 partner assisted pullups (BW)**

Once you can do 4 to 5 good slow negative pullups, try a partner assist. Grab the bar, bend your knees 90 degrees, and have a partner place their hands under your shins in order to apply gentle upward assistance.

### **Level 6 pullups (BW)**

The basic army standard. Use any grip you like.

### **Level 7 weighted pullups**

Add weight by hanging a plate from a dip belt, or holding a plate between your knees. An advanced movement, but a fun goal nevertheless.

**1-arm row (D)**

Place your right hand and right knee on a bench. Arch your back a little bit and stick your butt out (yes, I know it feels dorky). Grab a dumbbell in your left hand. Let left arm hang straight down. Look forward or down, whichever is most comfortable. Pull the left elbow to the left hip, squeezing the shoulder blade back. Keep your left hand as relaxed as you can without dropping the weight. Do desired number of reps, then do the other side.

**SQUATTING EXERCISES****Squats****Level 1 Railing squat (BW)**

Grab a railing at about waist height with both hands, facing the railing. Squat down, sitting so far back that you'd fall over backwards if you weren't holding on to the railing. Imagine sitting down in a chair that's way behind you. Go all the way down till the backs of your thighs are sitting on your calves. Basically go as far down as you can. Let gravity help out here. Sit here for a few seconds (keep holding on to the railing) and notice how this position feels. Observe the difference between the kind of squats that most folks do (i.e. partial squats) and a full squat (which this is). Now, without shifting your weight forward, stand back up. Use the railing for help as needed. Go for a couple of sets of as many reps as you can comfortably do, pausing in that bottom position each time. This is both a great pre-squat stretch for helping you get the flexibility you need, for teaching what a full squat actually feels like, and for helping you get the idea of sitting back and down rather than just down.

**Level 2 "Potty training" squat (BW)**

Sit down on the bottom step of a staircase. Slide your feet forward so that your shins are approximately vertical, although it's ok if the knees are forward a wee bit. Now stand up. Sit back down any way you like, and do it again. What'll happen is that your upper body will shift forward from the hips, and this will essentially be your perfect squat form. Again, go for 2 or 3 sets of as many reps as you can comfortably manage.

**Level 3 Unweighted full depth squat, no assistance (BW)**

This time, full squats with no additional weight, but no additional assistance from that railing or step either. Work up to at least a comfortable 15 reps per set with perfect depth and balance before you add weight. Also consider your foot placement and experiment to find one that feels best: narrow, wide, toes pointing forward or turned out slightly, etc.

**Level 4 Weighted full depth back squat (B)**

Start with a bar lighter than the standard 45 pounder if you can, as it's a rather big jump from no weight to 45. If you can't, just go for 20 squats as your minimum for level 3 before you attempt this. Place the bar on your upper back, below the bony bump at the base of your neck. Hands grab the bar on each side, wherever it's most comfortable. Sit back and down just like the other squats, keeping your midsection tight, and looking forward or slightly upwards. Never look down – your body will follow your eyes and your back will round and/or you'll tip forward. Don't cut the depth short because the weight is heavier.

## Deadlift

### Level 1 Wide-stance "plie" squat (BW)

Place feet very wide and turn your toes out a bit. Hang your arms down loosely. Squat down, pushing the butt back, letting the hands drop between the knees. Go down as far as you're comfortable – try and get your hands to your mid-shins. Keep the upper body as upright as you can. Look forward throughout. Never look down – your body will follow your eyes and your back will round and/or you'll tip forward. Midsection should stay tight with a slight arch in the lower back. Never round the back during this movement.

### Level 2 Sumo deadlift (D)

Same movement as Level 1, but hold a dumbbell with both hands.

### Level 3 Sumo deadlift (B)

Same movement as Level 1, but hold a barbell in front of your shins, as close to your legs as you can.

## 1-leg squat

### Level 1 Railing 1 leg squat (BW)

See the railing squat above. Stand on one leg, and hold the other one out behind you. Squat down. You can't get as far down with these at first with the rear leg out behind, until you get to level 4, so don't worry about the depth too much for now.

### Level 2 1 leg squat; rear leg supported (BW / D)

Stand facing away from a chair or ledge. Reach one leg back and rest that foot on the ledge. Squat down with the front leg as far as is comfortable. If you're having difficulty, try moving the front foot forward. To add resistance, hold dumbbells.

### Level 3 1 leg squat; on staircase; front leg extended (BW)

Stand facing away from a staircase. Hold one leg and both arms straight out in front of you. Sit down slowly on to the staircase. Then stand up again. Start with aiming for a fairly high step and work downwards to lower steps as you get stronger.

### Level 4 1 leg squat; to full depth; front leg extended (BW)

Hold one leg and both arms straight out in front of you. Squat down until the back of your squatting leg touches your calf (i.e. as far down as you can go). Stand up again.

## Lunges

### Lunge type A: Walking lunge (BW / D)

Take a big step forward. Keep upper body as upright as possible throughout the movement. Drop straight down (rather than forward and down), so that your front shin and rear thigh remain approximately vertical, and your front thigh and rear shin approximately parallel to the floor. To add resistance, hold dumbbells.

### Lunge type B: "Clock lunge" (BW)

Similar in concept to Type A except the foot placement changes. Imagine yourself standing on a big clock face, feet together. Step your right foot out to the front and drop down into a lunge (like the 12 o'clock position). Stand up, return your right foot to the start position. Then step out to the side (about 3 o'clock). Drop down into a squat (this will look like a wide-stance sumo squat). Return foot. Step right foot back into 6 o'clock. Drop down. Then do the left side (12, 9, and 6 o'clock). That is one cycle.

## Step-up

### **Level 1: On to step 12-18" tall (BW / D)**

Stand facing a step. Place right foot solidly on the step (i.e. not just on your toe or heel), and press into it firmly to lift your body up. Try to minimize the upward assistance from your left leg – make the right leg do as much work as possible. Finish standing on the step on your right leg. Step back down carefully. Do all the reps on one side, then switch sides. Use dumbbells to add resistance.

### **Level 2: On to bench approx. knee height (BW / D)**

Same as Level 1, but with a higher platform. Use dumbbells to add resistance.

### **Level 3: On to platform approx. mid-thigh height (BW / D)**

Same as Level 1, but with a higher platform. Once you get quite good at these, feel free to use a barbell for resistance instead of dumbbells – but this is more advanced and requires good balance.

## FULL BODY EXERCISES

### **Weight pickup and press (D / PI)**

Place a weight plate or dumbbell on the floor. The task here is simple: squat down, pick up the weight, stand up with it using good squat form, and once you have stood up with it, press it overhead. Imagine that your job is to pick something off the floor and put it up on a high shelf. Basic yet brutal, especially if you aim for higher rep sets. Once you get good at these, try this progression: begin with as large a plate as you can manage, and do as many reps as you can. Then switch to the next smaller plate, and keep going. Work your way down through all the plates from the biggest one you can handle to the smallest.

### **Swing (D / PI)**

A dumbbell works best here, but you can also use a weight plate (just watch your knees). I tell folks that this is the movement that little kids use when they try to throw a ball – they squat down and fire the ball off underhand with a sort of upward arm flinging motion.

Grip the dumbbell with both hands. It's up to you whether you want to place one hand over the other or, if you have small hands, adjacent to one another along the handle's length. I don't recommend interlacing your fingers unless you dig the sensation of your knuckles grinding together. Keep your arms relaxed and straight. Squat down. Let the weight hang between your legs naturally. This is the starting position. Ascend explosively and powerfully, driving through your heels, and swing the dumbbell up and out in a smooth arc, focusing more on out than up (it'll go up on its own steam if you focus on swinging it out). Control the part just at the very top so you don't fling it through the back wall. Your finish position is standing upright, arms straight overhead. Then, let the dumbbell drop naturally, but under control, down to the starting position. The only thing to remember is to squat down as the weight comes down, rather than bending over from the waist.

## MIDSECTION

### **Crunches – spinal flexion (abdominals)**

#### **Level 1 Basic crunch**

Lie on the floor, knees bent, feet flat on floor. Place hands behind head, elbows flared outwards, looking up at the ceiling. Tilt the pelvis, pushing the bellybutton down to the floor. Curl the upper body slowly off the floor, without allowing your arms to drag you up. Focus on slowly bringing the breastbone towards the pelvis.

#### **Level 2 Breathing crunches**

Keep one leg straight and one leg bent and perform a basic crunch. At the top position of the crunch, hold the body up and take a few good deep breaths. Then slowly lower.

#### **Level 3 Breathing crunches, starting from spinal extension**

Lie facing upwards on a big exercise ball, allowing your spine to extend slightly. Perform the level 2 crunch.

## **Holds – stabilization**

### **Level 1A Plank**

Begin in the top position for a floor pushup. Hands are on floor, you are facing down, body is straight and rigid, arms are straight. Hold this position, without allowing midsection to sag, as long as possible. Can also be done resting on forearms rather than hands.

### **Level 1B Side bridge**

Lie on your side. Come up on your elbow, resting weight on forearm. Lift your hips off the floor towards the ceiling until body forms a straight line from shoulders to feet. Hold as long as possible.

### **Level 2 Plank - side bridge combo**

Start in plank position, resting on hands. Hold for a few seconds, then slowly turn to face one side, keeping your body rigid and straight, and arms extended. One arm will come off the ground and you will end up in a side bridge. Hold for a few seconds, then slowly turn back down into plank. Hold for a second then repeat with turning in other direction. Aim for good quality movement, keeping body nice and rigid.

## **Spinal extension (lower back)**

### **Scorpion**

Lie face down on swiss ball, ball under upper body. Place palms firmly on floor. Raise legs straight as for a reverse back hyper, but keep raising them up as upper body tilts down. Try to get legs pointing almost to ceiling.

### **Cobra (B / C)**

Hold light barbell (or even a broomstick) or long cable handle (attached to bottom position of cable stack) in a very wide grip. Squat down slightly. Let arms hang down, so the bar/handle is around mid-thigh level. Swing bar up and out in a smooth arc to overhead. Push hips forward to drive the weight. Finish standing with slight arch in back, as if reaching overhead, and arms straight up. Do for high reps using light weight – this is not a heavy exercise.

### **Superman**

Lie face down on the floor. Arms are overhead. Raise both arms and both legs off the floor, like Superman flying. Hold as long as possible. You can also try raising alternate arms and legs (i.e. right arm, left leg).

## **1-leg hip/spine extension**

### **Level 1 “Airplane”**

Bend forward from the hips as far as you are comfortable. Ideally you want the upper body to be more or less parallel to the floor, so that you look like an upside-down letter “L”. Hold your arms out straight to each side. Bend your left leg very slightly. Now, carefully and slowly, raise your right leg backwards, keeping it straight. Go as high as you’re comfortable. Ideally, you want your upper body, rear right leg, and arms all to be parallel to the floor, and your weight supported by your left leg, but you’ll likely want to work up to this as the balance can be tricky. Hold that position for a second, then straighten up and slowly return to standing start position with arms remaining outstretched. Complete all reps on one side, then switch.

### **Level 2 1-leg deadlift**

Same as Level 1, except holding dumbbells to add resistance. Arms hang down towards the floor, rather than staying outstretched as in Level 1.

## Torso rotation/stabilization

### **Wood chop 1A – upward wood chop (C / D / PI)**

Start slightly bent at the hips and the knees, arms outstretched across the body and both hands at hip/thigh level on the right side. You can use a cable handle set in the bottom position, a dumbbell, or a small weight plate for resistance (or start with no resistance at all). Swing the straight arms outward and upward in a diagonal motion, ending up overhead on the left side. As the arms move up and across, notice how the hips want to help out, and let them straighten and turn accordingly. Think of making an “X” pattern across the body with this movement. Move the body as if everything from shoulders to hips were a single solid block – don’t twist excessively at the waist to make this movement happen. Do all the reps on one side, then switch.

### **Wood chop 1B – downward wood chop (C)**

This is the opposite of the upward chop. Use a cable handle set at the top position to provide resistance. Arms are straight and overhead to the left side. Keeping arms straight, “chop” downwards in a smooth motion across the body, bending and turning the body naturally at the hips and knees, to a point somewhere around the right knee/thigh. As with the upward wood chop, don’t twist excessively at the waist and move the body as if everything from shoulders to hips were a single solid block

## Exercise List

(B) - barbell only; (D) - dumbbells only; (BD) - bar or dumbbells can be used for this exercise; (BW) - body  
(C) - cable; (M) - machine

### **PUSHING EXERCISES**

<b>Exercise</b>	<b>Goal</b>
Pushup	
Level 1 wall pushup (BW)	12-15 reps/set
Level 2 counter pushup (BW)	12-15 reps/set
Level 3 stair pushup (BW)	12-15 reps/set
Level 4 floor pushup (BW)	As many as possible per set
Level 5 elevated feet pushup (BW)	As many as possible per set
Seated incline press (D)	12 to 15 reps/set
Standing overhead press (BD)	12 to 15 reps/set
Lying dumbbell press (D)	12 to 15 reps/set

### **PULLING EXERCISES**

<b>Exercise</b>	<b>Goal</b>
Seated cable row (C, M)	12 to 15 reps/set
Pullups/pulldowns	
Level 1 seated pulldowns (C)	12 to 15 reps/set
Level 2 standing pulldowns (C)	12 to 15 reps/set
Level 3A machine-assisted pullups (M)	12 to 15 reps/set
Level 3B (alternate) assisted pullups(BW)	12 to 15 reps/set
Level 4 negative pullups (BW)	5 to 6
Level 5 partner assisted pullups (BW)	As many as possible per set
Level 6 pullups (BW)	As many as possible per set
Level 7 weighted pullups	As many as possible per set
1-arm row (D)	12 to 15 reps/set

### **SQUATTING EXERCISES**

<b>Exercise</b>	<b>Goal</b>
Squats	
Level 1 Railing squat (BW)	15-20
Level 2 "Potty training" squat (BW)	15-20
Level 3 Unweighted full depth squat, no assistance (BW)	15-20
Level 4 Weighted full depth back squat (B)	12 to 15 reps/set
Deadlift	
Level 1 Wide-stance "plie" squat (BW)	12 to 15 reps/set
Level 2 Sumo deadlift (D)	12 to 15 reps/set
Level 3 Sumo deadlift (B)	12 to 15 reps/set

### 1-leg squat

Level 1 Railing 1 leg squat	12 to 15 reps/set
Level 2 1 leg squat; rear leg supported	12 to 15 reps/set
Level 3 1 leg squat; on staircase; front leg extended	12 to 15 reps/set
Level 4 1 leg squat; to full depth; front leg extended	As many as possible per set

Lunge type 1: Walking lunge	12 to 15 reps/set
Lunge type 2: "Clock lunge"	5 "circles" per set

### Step-up

Level 1: On to step 12-18" tall	12 to 15 reps/set
Level 2: On to bench approx. knee height	12 to 15 reps/set
Level 3: On to platform approx. mid-thigh height	12 to 15 reps/set

## FULL BODY EXERCISES

Exercise	Goal
Plate pickup and press	60 seconds or 20 reps
Dumbbell swing	60 seconds or 20 reps

## MIDSECTION

Exercise	Goal
Crunches	
Level 1 Crunches	12 to 15 reps/set
Level 2 Breathing crunches	12 to 15 reps/set
Holds	
Level 1A Plank	60 seconds or more
Level 1B Side bridge	60 seconds or more
Level 2 Plank - side bridge combo	As many reps with as slow a movement as possible
Scorpion	12 to 15 reps/set
Cobra	12 to 15 reps/set
Superman	60 seconds or more

### 1-leg hip/spine extension

Level 1 "Airplane"	12 to 15 reps/set
Level 2 1-leg deadlift	12 to 15 reps/set

Wood chop 1A – upward wood chop (C / D / PI)	12 to 15 reps/set
Wood chop 1B – downward wood chop (C)	12 to 15 reps/set

## FLEXIBILITY/YOGA

Exercise	Goal
Yoga	As desired
Stretches as needed for rehab or active flexibility	As desired

## INTERVAL CARDIO

<b>Exercise</b>	<b>Goal</b>
Intervals	
Stair run	15-20 min
Cycling	15-20 min
Sprints	15-20 min

**ACTIVE RECOVERY**

<b>Exercise</b>	<b>Goal</b>
Moderate cardio as desired	As desired
Swimming	As desired

## Workout template

Day 3 and 6 is optional -- I like to see trainees get a little activity every day, even if it's just gentle. You can take a full rest day if you feel so inclined.

Day 1	Date:	
Exercise	Sets	Reps/weight
1 full body	1 to 2	
1 squat	2 to 3	
1 pull	2 to 3	
1 push	2 to 3	
1 midsection	1 to 2	
Yoga or stretching as desired		

Day 2	Date:	
Exercise		
Intervals	5-15 min	
Yoga or stretching as desired		

Day 3	Date:	
Exercise		
Active recovery	20-45 min	
Yoga or stretching as desired		

Day 4	Date:	
Exercise	Sets	Reps/weight
1 full body	1 to 2	
1 squat	2 to 3	
1 pull	2 to 3	
1 push	2 to 3	
1 midsection	1 to 2	
Yoga or stretching as desired		

Day 5	Date:	
Exercise		
Intervals	5 - 15 min	
Yoga or stretching as desired		

Day 6	Date:	
Exercise		
Active recovery	20-45 min	
Yoga or stretching as desired		

Day 7 - take a day off or go back to Day 1 as desired