

Ab Strength Guide

From Back Injury to Abdominal Fantasy – The Quickest, Most Effective Method to Shaping up Your Abs while Taking Stress Away from Your Back



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About Dr. Kareem Samhouri



Dr. Kareem Samhouri is the president and owner of Global Fitness LLC. Through his company people are able to realize complete wellness, as they serve nutrition, massage, physical therapy, and personal training. Dr. K is a graduate of the University of Miami Doctor of Physical Therapy program and has earned a bachelor's of science from the Pennsylvania State University in Kinesiology. Additionally, Dr. K is a licensed physical therapist and holds a Health and Fitness Instructor certification from the internationally recognized American College of Sports Medicine.

Dr. K has worked in some of the best hospitals, rehabilitation facilities, outpatient physical therapy services, and elite performance gyms in the United States. He has taught personal trainers and physical therapists alike in their roles as one, united front in the best interest of the patient/client. Dr. K has spent his career surrounding himself with only *the best in his field* and intends to provide you with *the best* information out there.

Dr. K has trained countless clients in the fitness industry, while mentoring and teaching other fitness professionals at the same time. He speaks regularly to corporations and individuals on improving well being at the workplace. He is a dynamic and interesting speaker. Most recently, Dr. K has realized the necessity of bridging the gap between physical therapy and personal training. He has been recognized on many occasions as *the expert* in creating this bridge.

Dr. K is also an avid supporter of many charities and associations. He regularly endorses and donates to the following organizations: American Diabetes Association (ADA), Women's Fund, Phlare Magazine (for corporate women), American College of Sports Medicine (ACSM), American Physical Therapy Association (APTA), MS Society, Philadelphia Expo to combat Childhood Obesity, Miami-Dade Children with Disabilities, the Foundation for Physical Therapy, the Special Olympics, and the Para Olympics.

Introduction

Strength training your abdominal muscles can be one of the most important aspects of creating a healthy and stable back. I would venture to say that 99% of the people I see with low back issues actually have poor abdominal strength. Now, while this is true, there are a multitude of other factors that affect the low back. However, strengthening your abs certainly is one of the most important considerations for recovery and avoidance of future injury.

The world of “ab strengthening” is a very confusing one. Everyone on TV seems to have the perfect six pack and a huge smile on his/her face while performing what we later find out to be a miserable exercise. What’s worse? Many times, after we buy all of the gimmicks out there, we are in the same place we started, just a bit sorer, and a bit more frustrated. In truth, there are many ways to train your abs for physique, and many of them do work (although the most effective ways of training your abs do not involve any piece of equipment, electrical stimulation, or other “ab specific” device.) However, very few methods work on both physique and function at the same time. This is a key difference in strengthening your abs to assist your low back.

Also, while we are discussing ways to train your abs, it is important to clarify that your abs are muscles too. Therefore, shouldn’t we train them like any other muscle? Identify the action of the muscle, pre-stretch the muscle, reproduce the full action of it against resistance, take frequent rest periods, and use a normal quantity of exercise (i.e. 6-15 reps or 30-60 seconds.)

Identify the action of the muscle – in this case, abdominals: stabilize lower spine, rotate (right or left), compress abdominal contents, flex trunk (i.e. bend over), and, most importantly, **stabilize (no movement) your entire body from falling forward when you’re walking.**

Pre-stretch the muscle – in order to pre-stretch your abs, you cannot be horizontal to start. This means that doing sit-ups on the ground prevents a pre-stretch. You have to actually bend backward beyond straight in order to pre-stretch your abs. In the case of your obliques (also mentioned in the actions above), you’ll need to lean backward and twist in the opposite direction in order to get this stretch. For this reason, doing abdominal exercises on an exercise ball makes much more sense. **In regards to pre-stretching for the main purpose of our abs (stabilizing ourselves from falling forward when walking), there is no pre-stretch because no movement takes place for this action.** This is the majority of the way you should train your abs to prevent excessive pressure to your lower spine while walking, standing up from a chair, etc.

Reproduce the full action of the muscle against resistance – **most of the time, when training your abs without movement (stability), resistance can be your bodyweight;** you can also add exercise equipment such as medicine balls, dumbbells, therabands, etc. when training with movement.

Take frequent rest periods – generally speaking, you'll want to **rest 30-60 seconds** in between each ab exercise. If you'd like to keep your heart rate up, that's great, but be sure to switch exercises while you're resting your abs.

Use a normal quantity of exercise – It's true that your abs will be working throughout your entire workout to stabilize your spine and prevent you from arching your back. However, in terms of specific ab exercises, be sure to not overdo it. If you are training your abs with movement (see actions above for more details) then it is wise to be in the 6-15 repetition range. If you are doing 15 reps, for example, and you could have done 16, you need to increase the resistance. **If you are training your abs without movement (simulating walking and other common daily movements) then it is wise to train them for 30-60 second intervals, while you hold your position.** If you can get above 60 seconds, my recommendation is to increase the level, not time.

Bracing Versus Stabilization – From Start to Finish

Bracing your abdominal muscles refers to “bearing down” and squeezing your tummy muscles when you do an exercise. This is when you voluntarily contract your abs to keep your back from arching or to assist you with a movement. Bracing is extremely valuable early in an exercise program, and for some, it is extremely valuable forever. Early in an exercise program, it's very difficult to expect your abs to function without thinking and protect you from many potentially harmful movements. This is especially important following back injury. In most cases, as described above, abdominal strength is lacking for people who have hurt their backs. This means that even if your abs are working automatically, you may not have enough endurance to keep them contracted as long as you need. In this case, a voluntary contraction or rest are the two best options.

On the contrary, stabilization is a result of an automatic contraction taking place where your spine is stabilized and your abs are “on” without thought or intention. Stabilization is a result of deep muscles that support your spine acting together as one united force to prevent abnormal stress absorption in vitally important areas of your low back. Through practice of bracing, voluntary selection of key muscles involved in stabilization, and a strong ‘core,’ it is possible to become very automatic in the use of your stabilizing musculature. In order to strengthen muscles involved with stabilization, you'll need to work:

1. Quadratus Lumborum
2. Internal Oblique
3. External Oblique
4. Multifidus
5. Transversus Abdominus

Please note that we have not named ‘rectus abdominus’ as one of the muscles involved with stabilization, although *it is the muscle that forms your six pack*. We will use this muscle to perform the other exercises, and your abdominal region will certainly become more shapely, but this will not be our area of focus – the fundamental mistake with an ab program designed with sit ups, partial sit ups, ab rollers, etc.

To clarify, when starting out with this exercise program, it is important that you contract your abs and glutes to provide ample support to your back. This will be referred to as ‘bracing.’ As you progress through this ab program you should hopefully notice that this becomes more automatic. Once automatic and effortless, you have achieved ‘stability.’ Through stability you will develop a strong back that is protected from future injury.

Incorporating Abs Into Every Exercise

Once you build a strong core it is important to exercise the rest of your body with an emphasis on symmetrical strengthening (side to side and front to back.) Realistically speaking, it would be difficult to commit enough time to your workouts in order to do all of the ab exercises listed below in addition to the rest of your workout each time you go to the gym. It's a good idea to do at least 2 of these exercises on any given workout after you have entered into the stability phase and your core works automatically. Until then, it is my recommendation that you spend at least 20 minutes in every workout choosing exercises from this list.

It's extremely important to strengthen your trunk before placing heavy weights in your hands or onto your legs. You may want to think of your arms and legs as pendulums; your trunk is the base and your arms or legs swing freely as a result of the stable base. With this in mind, it is imperative to have a stable base in order to keep the weights moving in a predictable fashion. With a predictable system of movement you will decrease the opportunity for injury and increase the specificity of the exercise. Systems are safer and more effective, period.

If you are working out and you're not sure that your core is working automatically, feel free to brace yourself and protect your spine during an exercise. By placing a bit of extra emphasis into your abs and glutes, preventing you from tipping forward or backward, you are actually strengthening them in a very functional way. For this reason, it's important to always monitor your posture during exercise. Remember that maintaining an upright and stable posture is a lot easier when your muscles are trained this way.

Ripping up your abs, BACKWARDS!

If you truly want to be successful with your ab program you need to work on your low back. The strength of the muscles in your low back helps determine the position of your pelvis. If your pelvis is tipped too far forward your lower abs will be on stretch, your back will be arched, and your belly will stick out. If your pelvis is tipped too far backwards your lower abs will be scrunched up, producing a fold of skin (“a fat wrinkle”), and your back will be flat, decreasing your spine’s shock absorption capabilities. It is important that you train both your lower back muscles and your abs in order to maintain a healthier position for your spine, as well as a nicer physique.

By utilizing the system of exercises covered in this e-book, you will have all the tools you need to exercise your lower back while simultaneously strengthening your abs.

Strength vs. Physique – Are Abs Made in the Kitchen?



When considering physique in your abs, it's very important to think about nutrition. From a purely functional standpoint, your abs can be very strong and protect your back without having a six pack. There is absolutely no reason why you will need a six pack in order to protect your back. Having said this, many people like to see physical results when focusing on an area of exercise.

The exercises included in this e-book will provide all of the strengthening necessary to sculpt your abs and give you the washboard stomach that you've been seeking. However, it is impossible to achieve this level of results without:

- Strengthening your weakest segment first – in this case, this means that you back *must* be 100% before you could possibly take yourself to a level intense enough to get the “sculpting level” of results. (Hint: It's the same group of exercises, just slower, more resistance/less reps, and better form.)
- Offering the proper nourishment to your body.

In order to strengthen your back to the extent that you'll need in order to see dramatic, physical results, you'll need to be at a point where you no longer have pain with any movement. This means that you should not still be in the phase of rehabilitation where you have pain in the morning, last thing at night, or after a bout of exercise. You should have returned to full activity/work/sport before ever attempting to strengthen your abs to this extent.

The next step is 'failure point.' Failure point refers to the point of your workout where you are attempting to achieve another repetition of an exercise, but either your form breaks or you simply cannot get there. In order to increase the size of your abdominal muscles it's imperative that you exercise to failure point. In fact, if you want to increase the size of any muscle, you must hit failure point. As opposed to the number of repetitions recommended in this program, for pure strengthening of a stable back, you should be choosing a resistance that tires you out in

6-8 repetitions (or, with body weight, increase your time or change positions to make it more difficult. In general, small weight increases for the advanced section [knees on ball] will yield huge results.)

Offering the proper nourishment to your body is a delicate process. There is a lot of confusion in the world today in regards to proper nutrition. While the purpose of this book is not to dive very deeply into nutrition, it's important to recognize certain facts:

- Muscle needs protein to grow (you're probably not getting enough)
- Your body needs protein to heal (if your back isn't better yet, you may need to increase your protein intake.)
- Fish oil and Omega 3 fatty acids increase circulation, meaning better delivery of nutrients all over your body, and improved lymphatic system health. This means your body is better able to repair itself quickly.
- Fat is a necessity. Try your best to derive your fats from "good fat," such as almonds, olive oil, and low fat cheeses (i.e. part-skim mozzarella)
- Large quantities of carbohydrates, especially at night, will slow down your results significantly. Eat well, but don't over stuff yourself on too much bread, etc.
- The majority of your carbohydrates should ideally come from fruits and vegetables.
- In a perfect world, you would be getting 5-10 servings of fruit and veggies per day, from 20-30 different fruit and veggie sources. It's not only important how many fruits and vegetables you consume, but also the essential nutrients that come from specific ones. Certain fruits/veggies help decrease risk of cancer, others improve heart health, and some decrease muscle cramping. This is just a small percentage of effects that fruit and vegetables have on your system.
- Immediately following a workout, within 30-60 minutes, you should consume a combination of complex carbohydrates and protein to experience what's called and 'energy surge.' This will help your post-workout metabolism stay high, while also providing you with the energy you need to keep your day going. Be careful not to consume too much fat following a workout, as you may not have the opportunity to metabolize it.

In order to best meet these requirements and keep my diet balanced, I prefer to use organic supplements. Ideally, I would be getting all of these essential nutrients, fish oils, etc. from the original source, but that is very difficult for me to manage with a busy day and life's challenges. As a result, I've researched the market to find the products that I believe to be the best, and I've chosen to endorse them. My recommendations are as follows:

- Fish oil + Omega 3 fatty acid – I prefer my fish oil to come from krill, as the combination with Omega 3 fatty acid increases absorption several fold, as compared to standard fish oil. Also, some people find that they have oily burps and stool following consumption of fish oil, so I've sought out one that does not produce that sort of effect for me. It's called EFA icon. [Click here](#) to learn more.



- 5-10 servings of fruits and vegetables from 20-30 different sources – I prefer to consume fruits and vegetables from their natural sources whenever possible (I love both fruit and vegetables, so I eat plenty in my diet.) However, I know that I'm not eating pieces of certain fruits and veggies that will help my overall health. As a result, I've chosen VGF 25+, constituted of over 25 fruits, grains, and vegetables to ensure I'm getting all of my proper nutrients. To learn more about VGF 25+, please [click here](#).



- Complex carbohydrates + protein immediately following a workout – Some people prefer snack bars, some prefer shakes. I prefer shakes, so long as they taste great and they are easy to use. I've chosen the Prograde Workout shake, because I believe it tastes better, is more mixable, and because it has zero fat. At 180 calories, it seems to me to be the perfect snack until I have time to cook a real meal. To learn more about Prograde Workout, please [click here](#).



Remember, it's not only the exercise you do that will help you heal and improve your physique at the same time, but it's also the food you eat. Use these guidelines to help improve your eating and workout habits, and I'm sure you'll be pleased with the results.

How Much? How Little? How Often?

Consistency is equally important or more important than anything else that you've read so far. The true difference between those who succeed and those who do not lies in their dedication to success. To start, you'll need to set a goal. Perhaps your goal will be:

- ✚ "I'm going to strengthen my abs until my back pain has gone from a 2/10 to a 0/10"
- ✚ "I am going to resistance train for at least 30 minutes a minimum of 3x/week."
- ✚ "I am going to work on plank until I can hold it without my back arching and without rest for 60 seconds."

The important thing is that you set a goal. The time frame is already set for you at 6 weeks. The other important aspects of a goal are that it's SMART:

Specific – strengthen for back pain; resistance train; plank

Measurable – 2/10 to 0/10; 30 minutes 3x/week; 60 seconds without arching my back

Attainable – 0/10, not (-)1/10; not going from 0 – 3 hours/day; 60 seconds is normal for a strong core

Realistic – a 2/10 difference, not 8/10; 30 minutes 3x/week is a great start, not ten minutes

Time-referenced – 6 weeks for all goals named above, per this e-book.

In order to fully strengthen your abs to support your back, you should be adding the following routine to your work out:

	Day 1: 10 reps or 60 seconds	Day 1: 15 reps or 30 seconds	Day 2: 10 reps or 60 seconds	Day 2: 15 reps or 30 seconds
Plank		✓	✓	
Crossed extension	✓			
Bridge with ball				✓
Single leg bridge with ball			✓	
Side bridge		✓		
Lower ab ball twists			✓	
Push ups on ball				✓
Moving ball bridges	✓			
Multifidus twist on Ball with band		✓		
Lat rows with band, ball, and discs		✓		
Rotational plank			✓	
Single leg stability with band				✓

Ab Workout - Stability Exercises Vs. Crunches

At this point you're probably realizing that my preference is that you perform stability exercises over crunches. I hope that you understand the functionality of your 'stability muscles' versus your 'six pack muscle.' By training for stability you will improve physique while also gaining functional strength to enhance your workouts and reduce the chances of re-injury. Please see below for an optimal strengthening program related to stability *and* sculpting:

1. Plank

- a. Place forearms and elbows onto balance discs, with elbows directly under your shoulders, and palms facing up. If you don't have balance discs, place forearm & elbows directly on floor or pillows.
- b. Assume push-up like position, with your feet on the ground, and the rest of your body braced into position. (Hint: It helps to have light tension in your abs and glutes in order to maintain a straight back... no mountains or valleys here!)
- c. Hold for 30 seconds.



2. Crossed Extension – same side extension

- a. Position yourself on all 4's, with both knees under your hips, and both hands under your shoulders.



- b. Slowly extend out your right arm and left leg, without allowing any rotation to occur at your spine. For same side extension (more advanced), use same side arm and leg.



- c. Slowly return them to the starting position, on the ground.
d. Repeat on opposite side, alternating after each repetition. (Hint: It's not important how far you can stretch your arm and leg out... rather focus on keeping your spine stable. You will progress over time.)

3. Bridge with Ball

- a. Lay down on your back, knees bent, feet flat on the ball, shoulder width apart.)
- b. Squeeze glutes together.



- c. Raise your bottom up in the air as you press your feet into the ball and hold for 5 seconds. (Hint: The key to this exercise is maintaining a level position. Try to avoid twisting or dropping of your pelvis on one side. By squeezing your glutes with the same amount of force on each side, you'll be eliminating half the work.)



- d. Slowly lower yourself (still maintaining tension in the glutes) until you touch the ground.
- e. Relax your glutes, then repeat.

4. Single Leg Bridge With Ball

- a. Lay down on your back, with your right knee bent and right foot flat on the ball. Place your left leg along side, hovering just over the ball, with your left knee straight. Your legs should be about shoulder width apart.



- b. Squeeze both glutes together. Your right glute will help you lift your bottom into the air, but your left glute will keep you balanced.
- c. Raise your bottom up in the air as you press your right foot into the ball and hold for 5 seconds. (Hint: The key to this exercise is maintaining a level position. Try to avoid twisting or dropping of your pelvis on one side. By squeezing your glutes with the same amount of force on each side, you'll be eliminating half the work.)



- d. Slowly lower yourself (still maintaining tension in the glutes) until you touch the ground.
- e. Relax your glutes, then repeat for desired number of repetitions.
- f. Switch legs and begin again.

5. Side Flexion (Q.L.)

- a. Lay on your left side, right foot on top of left, with your left forearm against the ground at nipple level.



- b. Push evenly through your left arm and leg to lift your body into the air, forming a 'C curve' underneath you.



- c. Slowly return to the starting position and then repeat for desired number of repetitions.
- d. Switch sides and begin again.

6. Lower Ab Ball Twists

- a. Lay on your back with an exercise ball between your legs. (Hint: the closer the exercise ball is to your feet, the more difficult this exercise. Start with the exercise ball between your knees and progress when you feel safe and ready.)



- b. Keeping your back from arching and your knees straight, slowly lift the ball into the air while rotating, such that one leg ends up above the other.
- c. Once you reach the top, slowly return to the starting position by lowering the ball while untwisting.



- d. Repeat while alternating which leg rotates above the other for desired number of repetitions. (Hint: Pay special attention to prevent your lower back from arching while lowering the ball. In all likelihood, you may not be able to lower the ball all the way towards the floor without your back arching. This suggests TVA weakness and will improve with time. Only lower the ball as far as you feel you can safely go for the time being.)

7. Push-ups on Ball

- a. Assume push-up position with hands shoulder-width apart, fingers pointed down towards the ground. (Hint: It is more difficult to do this exercise with the ball on the ground. If you'd like to make it easier, you can place the ball against the wall instead of on the floor.)



- b. Slowly lower your chest towards the ball until you are about 1.5 inches away from the ball.



- c. Keeping your body braced, push into the ball and raise yourself back to the starting position.
- d. Repeat for desired number of repetitions or until fatigue. (Hint: Even if your arms are not tired, fatigue is still defined by your back arching or breaking form. Remember the goal of these push-ups is to strengthen your core, not to overload your arms.)

8. Moving Ball Bridges

- a. Lay on your back with your heels against the top of the ball and your knees straight.



- b. While squeezing your glutes, pull the ball towards you and lift your bottom off of the ground. Your toes should now be against the ball.



- c. Slowly return to the starting position by rolling the ball forward, maintaining tension in your glutes, and lowering yourself towards the ground.

9. Multifidus Twist on Ball with Theraband

- a. Sit on the ball, feet shoulder width apart, reaching across your body to grasp both ends of the theraband with your right hand.



- b. Pull the theraband towards you while rotating your shoulders as much as possible. (Hint: The tendency is to lean back while you rotate, but please do not do this. It is very important to maintain an upright posture, with your shoulder blades squeezed together and some degree of tension in your abs and glutes.)



- c. De-rotate as you return to the starting position.
- d. Repeat for the desired number of repetitions and then switch sides.

10. Lat Rows with Theraband, Ball, and Balance Discs

- a. Sit on the ball, feet shoulder width apart and on balance discs. Grasp one end of the theraband in each hand.



- b. Start with palms facing up and pull the theraband towards your body while rotating your palms to face down. Avoid leaning backwards as you pull the theraband by keeping light tension in your abs. (Hint: In order to stay balanced and target your lats, you'll need to keep your elbows close to your side throughout this movement.)



- c. Slowly return to the starting position by extending straightening your arms and rotating your palms to face up once again.
- d. Repeat for desired number of repetitions.

11. Rotational Moving Plank

- a. Assume plank position on balance discs, focusing on having your elbows directly underneath your shoulders.



- b. Maintaining an even position at your pelvis, shift your weight to one arm, and rotate your whole body as you straighten the other arm. Slowly unwind as you allow your straight arm to make contact, very softly, with the balance disc. You should now be resting on your hand.



- c. Shift your weight in the opposite direction and rotate fully as you straighten your other arm. Once you have fully rotated, unwind slowly and touch softly. You should now be resting on both hands, directly underneath your shoulders, with your body in a diagonal position to the ground.



- d. Rotate up and down again as you return one arm at a time to the starting position, focusing on going as SLOW as possible.



- e. Repeat for desired number of repetitions or until fatigue.

12. **Single Leg Stability:** 4 exercises with theraband – extension, flexion, abduction, adduction

- a. Stand with your feet shoulder-width apart and theraband around your right leg. There will be 4 positions:
 - i. Stand facing the pole, with the theraband wrapped around the back of your right leg.



- 1. With your right knee straight, slowly extend your leg backward, maintaining balance on your left leg.



- 2. Return slowly to the starting position and repeat for the desired number of repetitions.

- ii. Stand facing away from the pole, with the theraband wrapped around the front of your right leg.



1. With your right knee straight, slowly flex your leg forward, drawing your knee towards your chest, while maintaining balance on your left leg.



2. Return slowly to the starting position and repeat for the desired number of repetitions.

- iii. Stand with your right side towards the pole, with the theraband wrapped around the outside of your right leg.



1. With your right knee straight, slowly move your leg out and to the right, maintaining balance on your left leg.



2. Return slowly to the starting position and repeat for the desired number of repetitions.

- iv. Stand with your right side towards the pole, with the theraband wrapped around the inside of your right leg.



1. With your right knee straight, slowly draw your right leg in front of your body and across towards your left side. Do this while maintaining balance on your left leg.



2. Return slowly to the starting position, and repeat for the desired number of repetitions.
- b. Focus on maintaining your balance on your stance leg. (Hint: Make sure you are not leaning your upper body too far to one side or the other. Relatively speaking, this is also considered a loss of balance.)
- c. Repeat with your left leg against the theraband, standing on your right leg.

Unannounced Bonus: Advanced section

Formula:

Compound + Variable Speed/Direction of Movement = Fat Loss + Dynamic Stability

Warning: This group of exercises is intended for you to try only after you are able to perform all of the above exercises with ease, and without any pain/symptom. As always, begin every exercise by going through the motion slowly and controlled. Gradually, speed up to tolerance, focusing on form at all times.

Also, you should know that these exercises are tremendously effective in helping you develop supportive abs that can stabilize you through a wide variety of movements.

(Dynamic Stability/Compound Movement Exercises begin on next page)

1. Dyna Disc Squat with Med Ball Press

- a. Stand on balance disc with toes forward or slightly out, feet hip-width apart or slightly wider. Hold medicine ball chest height.
- b. Squat down and back into your heels as you prevent your knees from moving forward past your toes.



- c. Maintaining constant tension in your abs, slowly raise the medicine ball into the air with both hands. (Hint: Make sure you do NOT ARCH YOUR BACK.)
- d. Bring the medicine slowly back down to chest level.



- e. Stand, while contracting your glutes for additional low back support.
- f. This = 1 repetition. Perform for desired number of reps or until fatigue.

2. Squat Thrust

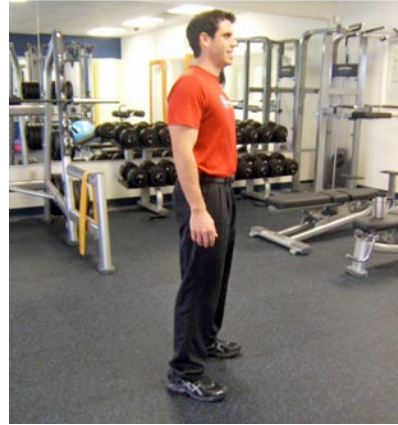
- a. Stand feet shoulder width apart, arms at your side.



- b. Squat down and place hands on ground in front of you, shoulder width apart.
- c. Shift your weight onto your hands as you kick your legs backward, landing on your toes in a push-up-like position.



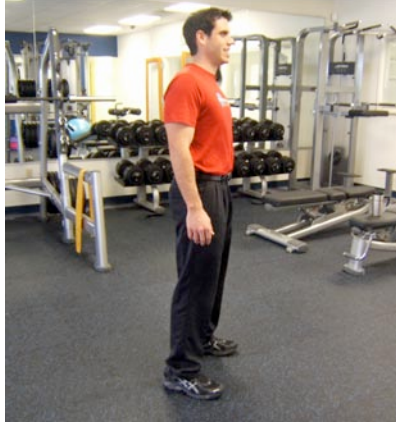
- d. Bring knees back towards chest, both at once, until your feet make contact underneath you.
- e. Stand up from squatted position. (Hint: For more advanced version, although also more stressful to the low back, you can add a jump. In this case, you will jump from ending position of “d.”)



f. Repeat for desired number of reps or until fatigue.

3. Burpee

- a. Stand feet shoulder width apart, arms at your side.
- b. Squat down and place hands on ground in front of you, shoulder width apart.



- c. Shift your weight onto your hands as you kick your legs backward, landing on your toes in a push-up-like position.
- d. Spread your legs apart and then bring them back together.



- e. Do a push up in this position, with careful emphasis on maintaining spinal stabilization – i.e. be careful not to let your back arch or round while doing the push up. (Hint: No mountains, no valleys)



- f. Bring knees back towards chest, both at once, until your feet make contact underneath you.
- g. Jump up from squatted position.



- h. Repeat for desired number of reps or until fatigue.

4. Mountain Climbers

- a. Assume push up like position, except with right knee towards your chest, and left knee extended with left foot on the ground.
- b. Reverse leg position by pushing back right leg while bringing left leg forward. Left knee is now close to chest and right knee is extended with right foot on the ground.



- c. Repeat. This (2 switches) = 1 repetition. Repeat for the desired number of repetitions or until fatigue.

5. Rotational Push Ups

- a. Assume push-up-like position, hands shoulder width apart and underneath shoulders, back flat, and feet touching one another.
- b. Slowly rotate to your right while lifting your right arm in the air and allowing your entire body to rotate with you.



- c. Once your right arm is now pointing directly in the air, return slowly to the starting position. (Hint: The real effect of this exercise comes from the speed. Be sure to go very slow if you want the best result.)
- d. Do 1 push up.



- e. Rotate to the left as above. This equals 1 repetition. Repeat for desired number of reps or until fatigue.



6. Lateral Plank

- a. Assume plank position, forearms shoulder width apart, even pressure through elbow and forearm, feet hip width apart or slightly narrower.



- b. Lift and move right arm and right leg to the right, maintaining tension in your abs and glutes to prevent your pelvis from dropping. (Hint: The goal is maintaining a rigid posture throughout this movement.)
- c. Bring left side towards right and repeat for desired number of reps.



- d. Repeat to the left side as above. This equals one set. Repeat for desired number of sets or until your form breaks. Be sure to maintain proper plank position, with a neutral spine, while doing this.

