Every runner knows what it feels like to lose steam at the end of a run. What most runners don’t realize is that it’s the lack of upper body strength that makes them feel this way. Your arms work with your legs. If your arms are strong and you can keep them pumping through the end of your run, your legs will follow suit.

**High/Low Routine:** When training for a long race like a half marathon, you want to avoid adding extra pounds. To avoid putting on those extra pounds keep the weight you lift low and the repetitions higher (2 sets of 12 repetitions will work when strength training for a half marathon).

**Keeping Good Form:** Keeping good form is not only important to obtain maximum benefits but also to avoid injury. Think 90 degrees when performing any type of resistance training exercise. Lifts are more efficient when the body part is in a 90 degree angle. Maintain upright posture (unless otherwise noted) and keep abdominal muscles slightly contracted. This stabilizes the core at all times during the exercise.

**Remember to Breathe:** Breathing is very important because it allows your muscle to relax and not tense up while performing resistance training exercises. Remember inhale while you are preparing for the exercise and exhale when you are exerting force.

**Take Your Time:** Don’t rush through your workouts. Taking time to stretch in between exercises will boost your fitness level. It is important to include stretching in any kind of exercise routine in order to maintain flexibility. During the lowering phase of resistance training your muscle will tighten up. Keep yourself loose and flexible by stretching in between each exercise or every other one.

*Information and pictures for the following exercises can be found at [www.acefitness/exerciselibrary.com](http://www.acefitness/exerciselibrary.com)*

*Reference: American Council on Exercise*
UPPER BODY

DUMBBELL BENCH PRESS
Target body parts: Arms, Chest, and Shoulder.
This is a basic lift that will help build strength and speed. You may use dumbbells, as shown, or a weighted bar. Keep you back flat, your knees bent and your feet flat on the floor, you may do this on a bench or on the floor. Your palms should be facing forward and your shoulders should be equal distance apart. Lift the dumbbells or bar straight up, without locking out your elbows and slowly to a 90 degree angle. If you are new to this exercise, you may try this on a chest press weight machine to ensure proper form and best results.

SHOULDER PRESS
Target body parts: Arms and shoulders
Grasp the dumbbells in your hands and sit with your back against a back rest so that your head, shoulders and bottom make contact with the bench. Keep a closed grip with your palms facing forward and thumbs wrapped around the handles, and keep your wrist in a tight neutral position. Begin at a 90 degree angle and lift the weight up above your head inline with your shoulders and back to the 90 degree angle. If you are at home you can challenge yourself by sitting on a stability ball or if you have access to a gym you can use the shoulder press weight machine.
SEATED LAT PULLDOWN
Target Body Parts: Back muscles
Sit facing the machine; adjust the thigh pad to fit tightly on your lap to hold you in place. Tighten your abdominal muscles to stabilize your spine, and attempt to avoid any arching of your low back throughout the exercise. Reach up and grasp the bar tightly about shoulder width apart and lean back slightly. Slowly and controlled pull the bar down below your chin to the top of your chest, hold this position for a split second and slowly exhale and raise the bar back to the start position. This exercise is great for developing back muscle strength.

ROW
Target body parts: Arm, and back
Begin by sitting on a mat/floor with your knees slightly bent, feet together and back in an erect position with your torso vertical to the floor for core support. Gently lean forward, bending at the hips and not rounding your back to grasp the cable/band handles. Hold the handles with your palms facing each other, thumbs wrapped the handles with your arms extended and your shoulders pulled back. Hold the handles with your wrists in a neutral avoid flexion/extension position. This exercise can also be done with dumbbells or a row machine, like the one found at G.L.F.C. This machine will help you stay in correct form and give you great results.
**PUSH-UPS**

*Target body parts: Arms, chest, and shoulders*

Begin by kneeling on an exercise mat or floor and bring your feet together behind you. Slowly bend forward to place your palms flat on the mat, positioning your hands shoulder-width apart with your fingers facing forward or turned slightly inward. Slowly shift your weight forward until your shoulders are positioned directly over your hands. Reposition your hands as needed to allow full extension of your body without any bend at the hips or knees, for a modified version of this exercise keep knees bent and on the floor. Tighten your torso by contracting your core/abdominal muscles, your glute and quadriceps muscles and align your head with your spine. Place your feet together with your ankles and keep your toes pointed towards your shins. *For more of a challenge, try doing the “traditional” push-up. See picture below modified push-up.*

![Modified Push-Up](image)

*For more of a challenge, you can try the more “traditional” push-up.*

![Traditional Push-Up](image)

**DUMBELL LATERAL RAISE**

*Target Body Part: Shoulders*

Stand holding the dumbbells in your hands, palms facing the body (elbows extended). Stand with feet shoulder width apart. Contract your abdominals and keep your head up straight (do this throughout the whole exercise). Exhale and slowly raise the *dumbbells* up and out to your sides. Continue raising the *dumbbells* until your arms are level with your shoulders and approximately parallel with the floor. Do not arch your back and avoid flexion and extension of your wrists. Slowly lower the *dumbbells* back towards your starting position keeping your elbows slightly extended.

![Dumbbell Lateral Raise](image)
**BICEP CURL**  
**Target Body Part:** Biceps  
Sit with your back against a back rest so that your head, shoulders and butt make contact with the bench and place your feet firmly on the floor. Grasp two dumbbells with palms facing forward and thumbs wrapped around the handles and let your arms hang to your sides, close to your body, with your palms facing forward. Exhale and slowly bend each elbow in unison, bringing the dumbbells towards your chest without arching your back or moving your elbows forward. Maintain a neutral wrist position. Then inhale and gently lower the dumbbells back towards your starting position. You may do this exercise standing but remember to keep good form, bend your knees slightly for support and keep your back nice and stabilized. _To challenge yourself, try doing this exercise on a stability ball._

**TRICEP EXTENSION ON STABILITY BALL**  
**Target Body Part:** Triceps  
Sit on a properly—inflated stability ball with both feet firmly placed on the floor, hip—width or wider apart. Hold a dumbbell with both hands wrapped around the dumbbell handle. Stiffen your torso by contracting your abdominal/core muscles, and pull your shoulders down and back, maintaining this position throughout the exercise. Your head and neck should be aligned with your spine. Slowly press the dumbbell overhead, extending your elbows until your arms are vertical to the floor, elbows pointing forward but not completely locked. The dumbbell should be positioned directly over your head with your palms facing upwards and the dumbbell hanging vertically or angled slightly. Keep your feet pressed into the floor and your hips pressed up towards the ceiling to maintain stability throughout the entire movement. Inhale and allow the weight to slowly bend your elbows, lowering the dumbbell behind your head in a controlled manner without moving your upper arms. Continue lowering the dumbbell until your elbows reach a 90 degree bend or until your upper arms begin to move backwards, but avoid making contact with the back of your head. Avoid changing the position in your head, torso, upper arms, wrists and feet. Despite the lengthy direction, _this is a simple exercise that can also be done standing up, laying on a bench, or on an arm extension weight machine._
CORE EXERCISES

SIT-UP
Target body part: Abs
Begin by placing your hands behind your head, squeezing your shoulder blades together and pulling your elbows back without arching your low back. This elbow position should be maintained throughout the exercise. Contract your abdominal and core muscles and flex your chin slightly towards your chest while slowly curling your torso towards your thighs. The movement should focus on pulling your rib cage towards your pelvis (the neck stays relaxed while the chin is tucked towards the neck). Your feet, tailbone and lower back should remain in contact with the mat at all times. Last inhale and slowly return to start position.

FRONT PLANK
Target body parts: Abs, and back
Begin by lying prone, on your stomach with your elbows close to your sides and directly under your shoulders, palms down and hands facing forward. Contract your quadriceps to extend your legs and pull toes towards your shins. Contract your core and abdominal muscles to stiffen your torso. Slowly lift your entire torso off the floor or mat, maintaining a stiff torso and legs. Avoid any arching or sagging in your low back, hips or bending in the knees. Avoid shrugging your shoulder and keep your shoulders positioned directly over your elbows with your palms facing down. Continue to breathe while holding this position for a specified time 5+ seconds. Then slowly lower your self while maintaining good posture.
SUPINE PELVIC TILT

Target body part: Abs
This is an easy exercise that will help boost abdominal strength. Begin by lying on your back with your knees bent and both feet flat on the floor. To start the exercise, exhale and gently contract your abdominal muscles to flatten your low back into the mat/floor. Avoid trying to lift your hips (tailbone) off the mat/floor. Hold this position briefly. Then inhale and slowly relax your abdominal muscles while gently contracting your low back muscles to increase the arch in your low back. Avoid raising your hips off the mat/floor. Hold this position briefly before returning to your starting position.

SUPERMANS

Target Body Part: Back, hips/glutes, shoulders
Lie on your stomach on a mat with your legs extended, toes pointing away from your shins, arms extended overhead with palms facing each other. Relax your head to align it with your spine. Exhale, contract your abdominal and core muscles to stabilize your spine and slowly extend both hips (raise both legs) a few inches off the floor while simultaneously raising both arms a few inches off the floor. Keep both legs and arms extended and avoiding any rotation in each. Maintain your head and torso position, avoiding any arching in your back or raising of your head. Hold this position briefly. Gently inhale and lower your legs and arms back towards your starting position without any movement in your low back or hips.
LOWER BODY

LEG PRESS
Target body parts: Legs, gluts, hip, and thighs

Begin by sitting with your back flat against the back pad of the machine. Place your feet on the resistance plate, toes pointing forward and adjust your seat and foot position so that the bend in your knees is at approximately 90 degrees with your heels flat. Lightly grasp any available handles to stabilize your upper extremity. Slowly exhale while pushing off of the resistance plate until your knees are at relaxed extension, knees should not be locked out). Last, you will slowly inhale while returning to the start position.

WALL SQUATS WITH STABILITY BALL

Target body parts: Legs, thigh, hips, and gluts

Place stability ball against the wall and gently lean against it, position the top of the ball into the small of your back, but making contact with your tailbone, low- and mid-back. Your feet should be shoulder width apart and feet hip-width apart and facing forward or turned out. Slowly lower your body, rolling the ball down the wall simultaneously, but keeping contact with your tailbone, low and mid-back against the ball. Focus on dropping your hips under the ball and pushing your hips back to reduce potential stresses placed across your knees. Lower yourself until challenged or your thighs are parallel to the floor. Then slowly exhale and slowly push your body up away from the floor, focusing on extending your hips to bring them back underneath your body. You can also perform this exercise without the stability ball.
LYING HAMSTRING CURL (LEG CURL)

Target body part: Hamstrings

Lie on your stomach on a mat and attach a cuff (cable or band resistance) to one ankle with the anchor or resistance point away from your body. Lie with feet hip-width apart. Gently contract your abdominal / core muscles ("bracing") to stiffen your torso and stabilize your spine. Keep your ankle lightly flexed (toes pointed towards your shinbone) throughout the exercise. Exhale and bend your knee, bringing your heel towards your buttock without moving your thigh (the top of your thigh remains on the mat), lifting your hips off the mat or arching your low back. Continue bending your knee until your heels near, or touch your buttock, or you reach the limits of your comfort level. The point where you notice your hips or low-back beginning to move indicates that you have reached the limits of movement in your joint. Slowly return your leg back to your starting position. This exercise can also be done on a leg curl weight machine – seated or prone position.

LYING HIP ABDUCTION/ADDUCTION

Target body part: Hips and gluts, inner thighs

Abduction: This exercise will help keep you flexible and help strengthen your hips. Exhale and gently raise the upper leg off the lower leg while keeping the knee extended and the foot in a neutral position (avoid flexion and extension). Gently inhale and slowly return your raised leg to your starting position in a controlled manner. After completing your set, roll over and repeat with the opposite leg.

Adduction: This exercise will strengthen your inner thighs. Move top leg slightly behind bottom leg. Lift bottom leg up and keep foot in a neutral position. Gently inhale and return to starting position. These exercises can also be done on a hip abduction/adduction weight machine.