



ED.— ALWAYS CONSULT A PHYSICIAN FIRST BEFORE BEGINNING ANY EXERCISE OR FITNESS PROGRAM.

## Back & Biceps

Text and photos courtesy of Gretchen M. Ashton CFT, SFT, SFN, NBFE

**The biceps are recruited along with the muscles of the back when the body is required to perform powerful physical activities such as lifting and pulling. To maximize their full potential, and because of their integrated function, the biceps and back are ideal muscles to train in the same exercise session. In the same way divers rely on the buddy system, the biceps and back accomplish together what they cannot individually. Divers will benefit from both the physical strength and mental discipline of this exercise combination.**

Adaptations to diving activities are numerous and include lifting and handling gear on or near the body,

climbing boat ladders under the weight of gear, assisting other divers with gear or rescue, and construction, industrial and technical diving tasks.

### Workout and muscles

Supersets combine more than one muscle group into an exercise sequence without a rest. Giant sets are multiple exercises that target the same muscle for more than one exercise in a sequence without a rest. This workout is a thorough combination of supersets and giant sets for major muscles, prime movers and stabilizers, which include the latissimus dorsi, trapezius (mid and upper), rhomboids, deltoid (anterior and posterior), biceps (brachii, brachialis, brachioradialis). Shoulder involvement provides another layer of protection and strength through a greater range of motion. The exercises shown here are demonstrated with dumbbells. If modular resistance machines or cables with weight stacks are available, greater power and strength can be added with more resistance.

### Sets, repetitions and intervals

Select a weight that is comfortably performed for 15 repetitions. Now



Concentration Curl beginning (above), middle (right) and ending position (above)





using the same weight, complete 25 repetitions or one-minute intervals, whichever is longer. Continue to the next exercise without stopping to rest until all four exercises have been completed. After each round, rest for one to three minutes. The workout is finished after four full rounds or 16 sets. Target a completion time of 45 minutes. Remember to sip water during rests.

**Concentration Curl.** This exercise is great practice for the mind-muscle connection, thus its name. In a seated position (as shown on previous page), brace the back of the arm between the elbow and shoulder against the inside of the same thigh above the knee. Count to four while exhaling and



Bent-Over Dumbbell Row beginning and ending position

lifting the weight, then count to four while inhaling and lowering the weight. Watch the biceps work and feel the sensations of the exercise. It is very rewarding and motivating.

**Precautions.** The elbow will sometimes slide up and/or on top of the leg. This usually happens when divers attempt to lift the weight by leveraging with the body instead of using the biceps. If this “unraveling” of form occurs, pause, reset and continue with proper form.

**Bent-Over Dumbbell Row.** Along with developing strength, this exercise helps maintain good posture. The standing position involves muscles of the lower



Bent-Over Dumbbell Row middle position

body similar to diving activity. Stand with feet between hip and shoulder width, bend forward at the hip, contract the abdominals and the buttocks to protect the low back, tuck shoulder blades down and toward center (retract), keep head in line with the spine, reverse the grip (palms up), straighten wrists, bend knees slightly, and extend arms. Inhale before beginning the movement and exhale while pulling the elbows back along the sides of the torso. Inhale again while resisting and lowering the weights. Notice the flat back. Concentrate on pulling with the biceps and large muscles of the back. This is a BIG exercise and meant to



Standing Biceps Curl beginning, middle (right) and ending position (left)



be performed with BIG muscles. Some divers will enjoy performing this exercise with a T-Bar Row apparatus.

**Precautions.** This exercise is not recommended in a standing position for divers with low back complications. Instead, it may be performed in a seated position with a small rolled towel or pillow placed under the abdomen for support for the low back. It may also be performed as a One-Arm Dumbbell Row, either kneeling or seated.

**Standing Biceps Curl.** Standing with feet about hip width apart, slightly flex the knees, contract the abdominals and buttocks, and tuck the shoulder blades down and toward center. The dumbbells are held in a hammer position in this demonstration. There is no need to twist the dumbbells at any time during this exercise, but definitely look to make sure the elbow remains alongside the torso throughout the curl. For most divers the range of motion will be complete before the dumbbell gets to the shoulder. If the elbow is pulling forward this means the movement has gone too far, the biceps is beyond contraction and the

Upright Row beginning (right), middle (far right) and ending position (right)



final movement came from the shoulder. Inhale before starting the exercise and exhale while lifting the weights.

**Precautions.** Do not lean backwards during the lift to prevent strain in the low back. If the dumbbells won't come all the way up, drop the amount of weight or do a partial repetition.

**Upright Row.** Raise the weights leading with the elbows. Keep the weights close to the torso. Control the speed and movement of the weight especially while lowering. Inhale to begin and exhale while lifting the weights.

This exercise may be performed in a narrow, mid or wide position from the center of the body. The greater the distance between the dumbbells, the more difficult the exercise is to perform. The wider the position, the lower the elbows will raise because of natural strength and range of motion



restrictions. It may be fun to try a different position in each round.

**Precautions.** Never allow the elbows to drop below the hands when performing this exercise. The greater the flexibility, the higher the elbows. When fatigue prevents the elbows from lifting higher than the shoulders, scarecrow (partially lift) the arms with elbows leading. Certain shoulder injuries or conditions may preclude this exercise. ■

*Gretchen M. Ashton is registered with the National Board of Fitness Examiners. An advanced diver, International Sports Sciences Association Elite Trainer, and world champion athlete, Ashton developed the ScubaFit program and the comprehensive FitDiver program, which includes the first mobile app for scuba diver fitness. Ashton is the co-author of the PADI ScubaFit Diver Distinctive Specialty course. For more information, visit: [ScubaFit.com](http://ScubaFit.com)*