# Health & Fitness

### Scuba Fitness:

By Gretchen M. Ashton, CFT, NBFE

# Double Trouble - Double Results

### Back and Biceps

**FTEN DESCRIBED AS "BIG GUNS," 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 benefit from both the physical strength and mental discipline of this exercise combination. Adaptations to diving activities include (but are certainly not limited to) lifting and handling gear on or near the body, climbing boat ladders under the weight of gear, assisting other divers with gear or rescue, construction, industrial, and technical diving tasks.



Gretchen is registered with the National Board of Fitness Examiners. An advanced diver, International Sports Sciences Association personal trainer and fitness therapist, and world champion athlete, Gretchen developed ScubaFit® and the Comprehensive FitDiver® program. Gretchen is a co-author of the PADI ScubaFit® Diver Distinctive Specialty Course and is an Expert Speaker for Los Angeles County Scuba Advanced Diver Program and Underwater Instructor Certification Course. She is the Health and Fitness contributor for California Diver Magazine, has been published in Alert Diver United States and Asia-Pacific, Divetime.com, and is a Scuba Fitness Examiner at Examiner.com. Gretchen has appeared on Scuba Radio, presented at the Scuba Show, and has been featured in the President<sup>18</sup> Council of Physical Fitness and Sports newsletter for inspiring and innovative accomplishments in fitness, and on the Margaritaville Key West website culinary column. As an athlete she set 21 World and Americans records and was the second woman inducted into the AAU Power Lifting Hall of Fame.

### WORKOUT AND TIPS

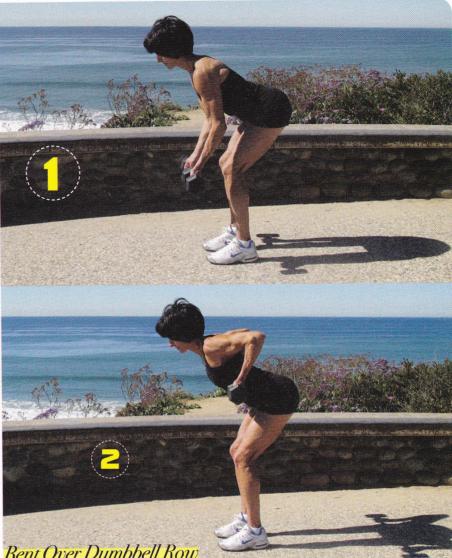
#### WORKOUT AND **MUSCLES:**

Supersets combine more than one muscle group into an exercise sequence without a rest in between. 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), and 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, take advantage of them. Greater power and strength can be added with more resistance.

#### SETS, REPETITIONS AND INTERVALS:

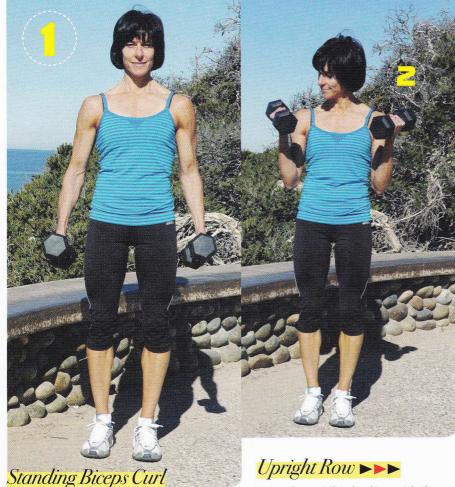
Select a weight that is comfortably performed for fifteen repetitions. Now using the same weight, complete twenty-five repetitions or one-minute intervals, whichever is longer. Continue to the next exercise without stopping to rest until all four exercises have been completed. After each round, rest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



Along with developing strength, this exercise helps maintain good posture. The standing position involves muscles of the lower 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. Some divers will enjoy performing this exercise with a T-Bar Row apparatus.

**PRECAUTIONS:** Divers with low-back complications should not perform this exercise in a standing position. Instead, try a seated position with a small rolled towel or pillow placed under the abdomen for lower-back support. You can also do a One-Arm Dumbbell Row, either kneeling or seated.  $\rightarrow$ 

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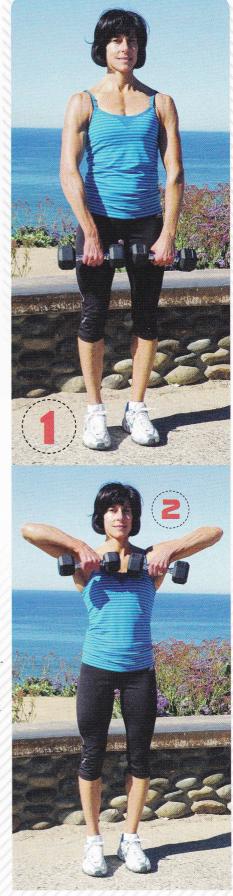


Standing with feet about hip width apart, slightly flex the knees, contract the abdominals and buttocks, and tuck the shoulder blades down and toward center. The dumbbells are held in a hammer position in this demonstration. There is no need to twist the dumbbells at any time during this exercise, but do 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 are beyond contraction and the 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. 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. In the wider position the elbows will not come up as high because of natural strength limitations and restrictions on the range of motion. You can also 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 fatique prevents the elbows from lifting higher than the shoulders, scarecrow (partially lift) the arms with elbows leading.





This exercise is great practice for the mindmuscle connection (which is how it got its name). In a seated position, as shown, 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 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.

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