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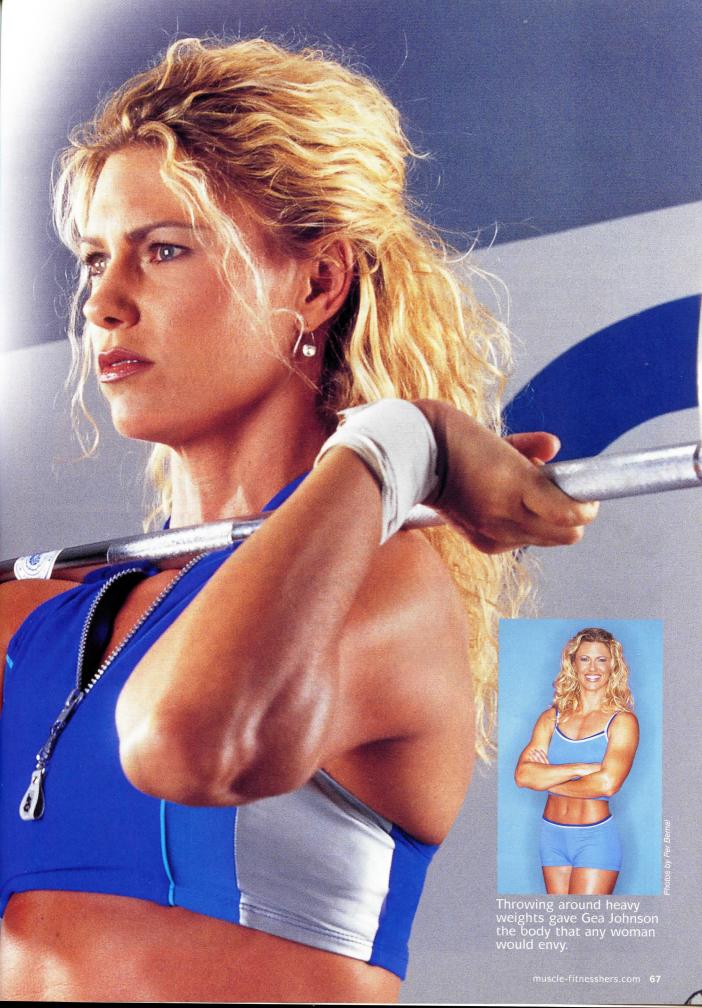
IF YOU WANT TO GET TIGHT, YOU CAN'T TRAIN LIGHT — SO DITCH THOSE 5-POUND DUMBBELLS. HERE'S WHY MORE WEIGHT EQUALS MORE RESULTS.

BY FRANK CLAPS, MEd, CSCS

For Olympic bobsledder Gea Johnson, there was never a doubt: The weight room was the vehicle she would ride to international athletic stardom. IFBB fitness pro Beth Horn wasn't so sure. "I always said, 'I don't want to get bigger,'" the fitness competitor recalls. "But lifting heavy has made me stronger, and it also helps the muscles have better quality, a little fuller look."

Sure, you say, professional athletes need to be strong and hold more muscle, but all you want is a little tone. Won't using heavy weights lead to big, bulky muscles, an unattractive masculine look? M&F HERS' answer is a lean and firm no. Researchers now believe avoiding heavier poundages may deprive women of the full health and fitness benefits resistance training can provide, including improved appearance and confidence.





tone deaf

"That toning word needs to be thrown away," insists Andrea Hudy, MA, CSCS, associate head strength and conditioning coach at the University of Connecticut, Storrs. "Anytime you're trying to put resistance on the body, you're trying to increase muscle strength."

Yet increasing strength doesn't necessarily mean you'll soon resemble an NFL lineman. "Please believe that there are those of us in the profession who wish it were that easy to put on muscle," remarks Carla S. Garrett, CSCS, a former assistant strength and conditioning coach at the University of Arizona (Tucson) who now trains professional athletes.

For athletes such as Gea, strength is the primary reason for entering the weight room. For recreational lifters, improved appearance is the major motivator. Increasing strength, however, has health implications all women should consider. First, women tend to lack strength compared to men, especially in the upper body. With age comes a reduction in muscle mass that can further compromise one's ability to perform the functions of independent living. Aging females also face a loss of

bone mass, called osteoporosis, that can result in painful, debilitating fractures. Stressing the musculature system can help prevent both conditions provided the stimulus (weight) is sufficient.

no chemistry between us

Even when they use heavy weights, women have a difficult time developing masculine-type muscles. "Females don't have the hormonal makeup that males do," explains Hudy. "That's the big thing women don't realize." Because women have significantly lower levels of the anabolic hormone testosterone (important for muscle growth) than their male counterparts, their gains in muscle mass come much more slowly. "Unless you eat too much or take anabolic steroids, you won't get that much bigger," Beth adds.

"I think women need to understand that they can be lean, athletic and very feminine and still be super-strong," Gea notes. "To me, that's sexy." If you don't believe her, just look at the pictures of her and Beth on these pages.

Still, there may have been some skeptics when William J.

UNTIL NOW, you may have thought that far end of the weight stack was strictly for the guys. But if the comments from Olympic athlete Gea Johnson, fitness competitor Beth Horn and our other experts have psyched you up to add some heavy days to your regimen, check out these two programs from experts at the University of Connecticut (Storrs) that you can adopt as your own. Don't be afraid to change the amount of sets, reps, or even the cycle pattern to fit your needs.

| Lifting heavy weights helps Beth Horn develop fuller muscles. | | |
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| Dr. Kraemer's Heavy-Metal Rx | | | | |
|---------------------------------|------|-------|--|--|
| Weeks | Sets | Reps | | |
| 1–3 | 3 | 8 | | |
| 4–6 | 3 | 5 | | |
| 7–9 | 3 | 3 | | |
| 10-12* | 3 | 10-12 | | |

*At the end of the 12th week, you can cycle back to Week 1 or pick up a new routine.

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|-----------------|----------------------|------|------|--|--|--|
| Month | Workout [†] | Sets | Reps | | | |
| 1 | 1 | 3 | 12 | | | |
| | 2 | 3 | 8 | | | |
| | 3 | 3 | 5 | | | |
| 2 | 1 | 3 | 10 | | | |
| | 2 | 3 | 8 | | | |
| | 3 | 3 | 4 | | | |
| 3 | 1 | 3 | 8 | | | |
| | 2 | 3 | 6 | | | |
| | 3 | 3 | 3 | | | |

tWorkout number refers to the workout for a particular bodypart, so how you split up your bodyparts influences the frequency at which you repeat each three-workout cycle. For example, if you do a wholebody workout three times per week, let's say on Monday, Wednesday and Friday, then Workout 1 would be Monday, 2 would be on Wednesday, and 3 on Friday. You'd repeat this cycle four times before moving on to Month 2.

If you split your body into three separate workouts and train each once a week, then you'll do each workout at the Workout 1 set-and-rep range during the first week. In Week 2 you'll do each workout with the set-and-rep scheme of Workout 2, and use the set-and-rep range of Workout 3 during Week 3. Return to the set-and-rep range of Workout 1, Month 1, during Week 4. At Week 5, you're ready to tackle the Workout 1 set-and-rep scheme of Month 2. Cycle through the four weeks like you did in Month 1 before moving on to Month 3. After progressing through Month 3, you can cycle back to Month 1 or start a new routine.

heavy is as heavy does:

SPOT CHECK. On barbell exercises such as bench presses, military presses and squats, you must have a reliable spotter.

ARE YOU EXPERIENCED? Increase the weight only on exercises that you've performed for more than six months.

HEAVY BREATHING. Inhale and hold your breath during the positive portion of the lift (when you're pushing or pulling the weight). Exhale at the finish of the positive phase and inhale as you resist the pull of the weight as it returns to the starting position. This will help you apply greater force during your lifts.

FORM FIRST. Proper form is extremely important when lifting heavy weights. If your form becomes compromised on an exercise, you need to lighten the weight.

CARDIO LAST. Do no more than 10–15 minutes of light cardio before your heavy workouts - you need your energy. Save the lengthy cardio sessions for after the weights or a separate day altogether.

SUCCESS THROUGH FAILURE. Use a weight that's heavy enough that you can't do another repetition right away. This is called momentary muscular fatigue.

LOG IT. The right amount of weight to use will vary from person to person and from bodypart to bodypart. At least initially, determining the proper weights may involve trial and error, requiring you to keep a record of each workout and make notes for the next.

Kraemer, PhD, professor of kinesiology, physiology and neurobiology and director of research at UConn, Storrs, asked for subjects to study the effects of heavy resistance training as opposed to more traditional methods. "I think most of the women were surprised, pleasantly surprised," he states. "They were looking leaner, and able to get into smaller clothing.'

Kraemer's study involved three groups of women: One group began training with 12 repetitions and increased weights while decreasing to eight reps; a second group began with eight reps and went much heavier to three; and the last group of women did nothing, to serve as a control group. For those who lifted weights, the weight used was the most each individual could handle for the amount of reps prescribed, and

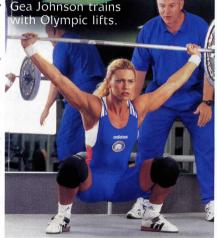
was increased as the reps decreased. "What we found was that the heavier group, the group that started at eight reps and moved to three, had the most lean muscle mass gain," says Kraemer.

use the force

To Kraemer, the study indicates the need for women to incorporate heavier lifting cycles into their training regimens. Traditional sets of 15-20 reps with relatively light weights don't sufficiently hit the fast-twitch muscle fibers, which tend to suffer most with aging. "Heavier weights activate more muscles than lighter weights," Kraemer explains. "When you use light weights, you typically aren't using the big muscle fibers [fasttwitch] you have."

If you've never challenged your muscles with heavier weights, you may be surprised at how good a serious workout will make you feel. Gea remarks, "When I'm lifting heavy weights and know that I'm strong, I feel very good, and I feel that I look good."

Using heavier Gea Johnson trains poundages can provide many health and fitness benefits. improved appearance and confidence.



Beth adds: "With higher-intensity weight training, the muscles will actually look better and have a better shape. When bodyfat is low, quality muscles look good."

heavy cycling

As important as lifting heavy is, it's just as important to not lift heavy all the time. "I can't always do 100% lifts," says Gea. "It has to be cycled or periodized." By that she means you must periodically change the amount of weight you use and the corresponding number of reps you perform.

"If you're doing lower reps and higher weights, do it for maybe a few weeks, then get off it and do something else," Beth suggests. By changing the amount of weight you lift, you prevent the likelihood of overtraining. To safely and effectively incorporate heavy weights into your program, try one of the lifting cycles outlined in "UConn Lift It," or develop your own periodized program that cycles heavy lifting with lighter phases.

A free-lance writer and personal trainer, Frank Claps operates "Fitness for Any Body" in the Lehigh Valley area of Pennsylvania. He can be reached at claps@nni.com.