

ACE Puts Curves to the Test

Millions of Women Love it, but Does it Really Work?

by Mark Anders

ANATOMY OF A CURVES WORKOUT

The signature Curves for Women workout is a 25-minute circuit. Exercisers move around a circle of 12 hydraulic resistance machines (listed below), alternating between 30 seconds of lifting and 30 seconds of stationary jogging, marching or walking on springy recovery boards. Most women do two full circuits followed by five minutes of stretching.

- abdominal curl/back extension
- hip adduction/hip abduction
- biceps curl/triceps extension
- chest press/seated row
- triceps pushdown/upright row
- leg extension/leg curl
- chest fly/shoulder retraction
- shoulder press/pull-up
- leg press
- squat
- trunk rotation
- hip extension

Here are the facts: Curves for Women is the largest fitness franchise on the planet, with more than 8,500 locations worldwide. Since its inception in 1992, more than four million women have joined the 30-minute circuit-training gyms. And it's now the fastest-growing franchise—in any industry—in U.S. history.

The first Curves franchise opened in Paris, Texas, in 1995, and by the late '90s it seemed like the spartan, female-only exercise studios were popping up in strip malls in every town. They are bare-bones and nothing fancy. Just a circle of resistance equipment with springy recovery boards between each station. Absent are the locker rooms, cardio equipment or trendy juice bars found in most fitness clubs.

Judging from their unprecedented growth, apparently Curves is also missing something else—the intimidation factor. For the first time, masses of inactive, middle-aged women—a huge untapped market—felt comfortable enough to join an exercise club. In just a few short years, Curves took the fitness industry by storm, turning legions of inactive women into faithful exercisers.

What self-respecting health advocate wouldn't applaud that kind of success? But does Curves really work? And what sort of exercise intensity and calorie burn can women expect from the Curves workout?

The Study

To test the efficacy of the Curves for Women workout, the American Council on Exercise enlisted the expertise of Kristin Greany, M.S., R.D., and John Porcari, Ph.D., researchers from the University of Wisconsin, La Crosse.

"Curves doesn't make any claims about its workouts, so this was more of an observational study to see what was going on," says Greany. "We wanted to determine the intensity and how many calories are being expended—just to put some numbers to the Curves workout."

The research team recruited 15 healthy women from two local Curves locations in La Crosse. All subjects were between 26 and 55 years old, with an average age of 42. Prior to testing during an actual Curves workout, treadmill assessments were conducted to determine each subject's VO_2max , or aerobic endurance level. During the test, a portable metabolic analyzer was used to measure oxygen consumption and calories burned. Heart rate was also collected using a Polar heart-rate monitor, and ratings of perceived exertion (RPE) were assessed throughout the testing process.

Once a fitness baseline was established for each subject, the researchers followed the exercisers through two complete Curves workouts. Each exercise session mimicked the signature 30-minute workout, including a 25-minute circuit (two rounds of 30-second bouts on 12 hydraulic resistance machines alternating with 30 seconds of active recovery—stationary jogging, marching or walking) followed by five minutes of stretching and cool-down.

Every effort was made to ensure that subjects completed a typical Curves workout, so the women exercised in the company of fellow club members as usual; the only exception was the subjects were asked to refrain from speaking (a change from many Curves locations, which are often very social). Background music with a fast beat was piped in over the club's loudspeaker, and every 30 seconds a voice prompt signaled the exercisers to move from station to station.

Just as in the treadmill testing, heart rate and gas exchange were monitored during the Curves workout. Following each exercise session, the subjects were asked to give a RPE for the resistance machines as well as the active recovery stations.

The Results

Researchers found that the total 30-minute Curves workout burns an average of 184 calories, while the 25-minute circuit alone burns 163 calories. "Intensity-wise it's similar to walking four miles an hour [for 30 minutes] on a flat treadmill," says Greany. "So it's a moderate-intensity workout."

Although it's comparable to a brisk walk, Greany says the Curves workout is likely to be more of a total-body exercise because it incorporates resistance training for the upper body and core, as well as the legs.

While Porcari notes that the data for Curves is "dead on" with other studies on circuit training, he expects some people will be surprised by the relatively low average total caloric expenditure of the Curves workout. "It might be kind of a wake up call that half a Krispy Kreme donut is all that it takes to negate the effect of a Curves workout," he says. As for the RPE, although researchers recorded similar intensities between the resistance machines and the recovery boards, the subjects reported significantly higher ratings of perceived exertion for exercising on the resistance machines—14 versus 12.6 for the recovery boards.

"The results overall were very positive," says Porcari. "People got their heart rates up into the training zone—they averaged 60 percent of $\dot{V}O_2$ max, which puts them above the minimum threshold for improving aerobic capacity. They were also at 75 percent of the heart-rate max, which is within the recommended guidelines. That's good from a physiologic and health point of view and they get the benefits of strength training, too, which you don't get from walking."

Curves Considerations

Though the vast majority of their findings were positive, the researchers noted a few issues with the Curves workout that could be improved.

First, the hydraulic resistance-training machines in the Curves circuit are not adjustable—aside from a few pads designed to help smaller exercisers fit better. But the experts say it's more of a comfort issue than an exercise safety concern. However, because the resistance is dependent on speed, there is a limit to how fast you can go without sacrificing proper form.

"The nature of hydraulic resistance

makes it very easy and efficient to get a lot of people through the circuit very quickly. But the machines aren't adjustable, so they are going to fit some individuals better than others," says Porcari. "And there's no way to quantify how hard people are working, so it's easy for people to just go through the motions. The benefit you get is directly proportional to the amount of effort you put into it."


Greany also warns that women should avoid the temptation to turn their Curves workout into a social hour. Although the camaraderie and social reinforcement is an integral part of the franchise's success at attracting and motivating non-exercisers, on many occasions the researchers noted that some women seemed more interested in chatting than exercising. "Sometimes it really is kind of like an old fashion beauty salon where women go and catch up on what's going on," says Greany.

Finally, not all Curves locations are staffed with individuals who are skilled in personal training or exercise science. All franchise owners go through training led by Curves headquarters, but from there, Greany says the information and training has to "trickle down" to the day-to-day employees and, unfortunately, their fitness knowledge is often watered down. Though most of the staff are excellent motivators, Curves members would benefit from better-trained employees.

The Bottom Line

Simply put, the Curves workout is a good time-efficient, low- to moderate-intensity exercise program. "For the very active, it's not that spectacular of a workout," says Greany. "But for those who have been sedentary, Curves is just what they needed."

The franchise has done a commendable job of attracting the middle-aged female non-exerciser. Their no frills, nurturing, half-hour approach to fitness works. And Curves has arguably done more to get inactive women exercising than any other fitness trend or organization in the history of exercise.

Are there better, more intense workouts out there? Of course. Would a one-on-one session with a personal trainer be more effective? Certainly. But, as Greany puts it, "The resounding positive point is that Curves really targets that segment of the population that's inactive or has been to traditional gyms and been scared away. And it's those people who have the most to gain from physical activity." 

This study was funded solely by the American Council on Exercise (ACE) and conducted by Kristin Greany, M.S., R.D., and John P. Porcari, Ph.D., at the La Crosse Exercise and Health Program of the University of Wisconsin, La Crosse.

DID YOU KNOW?

- **Fat vs. Fit: For every two McDonald's in the United States, there is one Curves for Women.**
- **Record Holder: Guinness World Records lists Curves as "The world's largest fitness center franchise."**

To see the complete data tables for this study, go to the ACE Web site and click on "Health & Fitness Info" www.acefitness.org/getfit/research.aspx