

Lab Results:

Curves Cuts the Mustard

New research shows that the Curves weight-loss and fitness program may just be the best way to drop pounds and keep them off for good.

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Despite its remarkable success over the years, the Curves weight-loss and fitness program still has its skeptics because of the unconventional approach that it takes. To help convince those in doubt, therefore, Curves cofounder Gary Heavin asked if I'd test his program in my laboratory at Baylor University using women representative of Curves members.

The extraordinary results of this study soon will be reported at the annual meeting of the American College of Sports Medicine, but I offer a sneak preview here in hopes not only of quieting Curves doubters, but also of further inspiring anyone already embarked on the Curves journey to better health. Anyone thinking of joining Curves should be motivated by these results, too, of course. At a time when obesity is at an all-time high, it's nice to know there's a program that can live up to its claims.

Who Were the Women?

Because our goal was to assemble women as representative of Curves members as possible, study participants had to be 18 to 50 years old, have no serious health problems, be moderately overweight, and have no recent history of participation in an exercise or weight-loss program. Of

the more than 500 women who applied, 245 met these criteria and 123 would go on to complete the phase of study reported here. Prior to the study, the 123 women weighed 164 to 246 pounds, stood 5-foot-2 to 5-foot-8, had body-fat measurements of 40-50% and were 31 to 47 years old.

What Did They Do?

Before beginning the dietary and exercise phase of the study, participants were tested for body composition (amounts of body fat and muscle) and resting metabolic rate (number of calories they burned while inactive). They also were asked to complete the Curves carbohydrate tolerance questionnaire (as it appears in Gary Heavin's *New York Times* bestseller *Curves: Permanent Results Without Permanent Dieting*) to determine whether they were better candidates for a high- or low-carbohydrate diet.

The Dietary Component: A Closer Look

In keeping with the dietary guidelines recommended by the Curves program, women assigned to one of the calorie-controlled diets for purposes of weight loss were instructed to consume those calories as follows:

- 1,200 calories a day for 2 weeks
- followed by 1,600 calories a day for 8 weeks
- followed by 2,600 calories a day for 4 weeks with 8 days of intermittent dieting (1,200 calories a day) at various intervals.

The calories were to be divided as follows:

- High-carbohydrate group:** 55% carbohydrate, 15% protein, 30% fat
- Moderately high-protein group:** 50-55% protein, 15-20% carbohydrate, 30% fat
- High-protein group:** 50-63% protein, 7-15% carbohydrate, 30% fat

Based on the test results, the women were assigned to one of the following groups and were instructed to eat and exercise in the manners specified for 14 weeks:

Group 1: These women would participate in the *standard Curves exercise program* of three, 30-minute circuit workouts a week but make *no changes in their normal eating habits*.

Group 2: These women, grouped because of their sluggish metabolisms, also would take part in the Curves exercise program but be put on a *high-*

calorie diet of 2,600 calories a day—a level high enough (hopefully) to give their metabolisms a boost.

Group 3: This group would participate in Curves workouts while eating a calorie-controlled *diet high in carbohydrates*. (See “The Dietary Component: A Closer Look,” at left, for more information about the diet aspect of the study.)

Group 4: This group would participate in Curves workouts while eating a calorie-controlled *diet moderately high in protein*.

Group 5: This group would participate in the Curves program while eating a calorie-controlled *diet very high in protein*.

Group 6: To serve as a comparison to the other five groups, these women would make *no changes* in their exercise or dietary habits at all.

What Did We Learn?

One of the most exciting findings was that the women on the high-calorie diet, who increased their calorie consumption (Group 2) were able to boost metabolism and drop a few pounds compared with Group 1, which made no changes to their diet (see “Group Success,” below, for more highlights).

Overall, the results of this study suggest that the Curves program may indeed be unique in being able to deliver on its promises. Women following the Curves program lost fat, gained strength, boosted their metabolisms, and made significant improvements in such important health indicators as body fat, blood pressure, aerobic fitness, resting heart rate, and bone density. More importantly, they were also able to *sustain* these achievements.

Given the regrettable rate at which



In the 14-week study, women using Curves lost an average of 2 inches from their hips and 3 from their waists.

most weight-loss programs are able to succeed at the all-important maintenance aspect of weight control, this might be seen as the most remarkable feature of the Curves program. Also impressive was how few women dropped out of the study, which was certainly not short on structure in order to assure its integrity on a scientific level.

Here are several other important findings:

- Women participating in Curves workouts lost an average of 2 inches from their hips and 3 from their waists, thus improving their odds against cardiovascular disease.
- The amount of weight lost by women participating in the Curves program for just 10 weeks equaled or exceeded the amounts typically lost by people following other popular weight-loss programs for as long as 6 months. Women on the Curves program also proved to be far more successful at maintaining their losses than people participating in these other programs.
- The Curves method of maintaining a normal diet followed by intermittent reductions in caloric intake is not only effective in helping women maintain weight loss but can help them promote additional weight loss, as well.
- Frequent blood tests and weekly reports of side effects showed the Curves program to be both well-tolerated and safe.

GROUP SUCCESS

Following are the most notable benefits achieved by women who participated in the Curves exercise program accompanied by various dietary strategies for a period of 14 weeks. Using the Curves carbohydrate tolerance questionnaire, each of the participants were assigned to a group based on whether they were better candidates for a high- or low-carbohydrate diet.

GROUP	BENEFITS ATTAINED	SIGNIFICANCE
#1 Curves workouts only	fat lost (2 lbs.) plus muscle gained (½ to 1 lb.)	Curves workouts can promote positive changes in body composition even without dietary changes.
#2 Curves workouts plus high-calorie diet	weight loss (4 lbs. total, 2.2 lbs. fat) plus a 25% boost in metabolism (calorie burning even at rest)	For women with slow metabolisms, Curves workouts plus an increase in calorie intake (500 to 1,000 calories/day) can boost metabolism and help them lose weight.
#3 Curves workouts plus high-carbohydrate diet	weight loss (11 to 12 lbs. total, 8 lbs fat)	A high-carbohydrate diet can be effective for women determined to be good candidates for such a diet based on their responses to the carbohydrate tolerance questionnaire.
#4 Curves workouts plus moderately high-protein diet	weight loss (11 to 12 lbs. total, 8 lbs. fat)	A low-carbohydrate diet can be effective for women determined to be good candidates for such a diet based on their responses to the carbohydrate tolerance questionnaire.
#5 Curves workouts plus very high protein diet	weight loss (14 lbs. total, 10 lbs. fat)	A very high protein diet may be the most effective for women determined to be good candidates for such a diet based on their responses to the carbohydrate tolerance questionnaire.



123 women participated in the Baylor University study.