

# IMPACT

University of Idaho  
Extension

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## StrongWomen™ improves strength and health in Bear Lake County

### The Situation

As people age, they lose approximately one-third to one half of a pound of muscle every year, especially after age 40. This translates into one to two percent of strength a year. As people lose muscle, it is usually replaced by fat. As people lose muscle, they tend to automatically become less active. Daily activities become harder to perform and they tire out more easily. The good news is that strength training has the power to prevent muscle loss, increase strength, and keep daily activities doable.

### Our Response

University of Idaho Extension Educator provided two strength-training programs using the StrongWomen curriculum developed by Tufts University. The programs were conducted by Sharlene Woffinden, a certified StrongWomen instructor. Two classes were offered each week for six weeks.

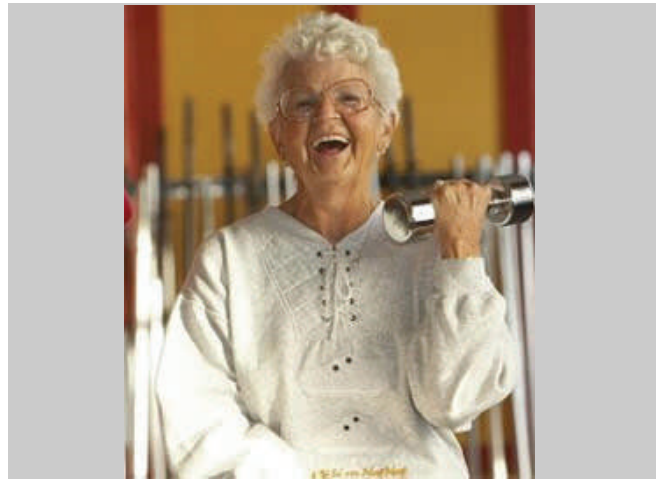
Each class lasted approximately 60 minutes and had participants doing three arm exercises, five leg exercises and a cool-down with gentle stretches.

Three evaluation tools were used to measure program outcomes. Information about each evaluation tool is provided below.

### Pre/Post Functional Fitness Assessment

Two tests were used from the *Senior Fitness Test Manual*: 30-Second Chair Stand and Arm Curl.

- The 30-Second Chair Stand test is done by counting the number of full stands completed in 30 seconds with arms folded across chest. This test is used to assess lower body strength.
- The Arm Curl test is done by counting the bicep curls that can be completed in 30 seconds using a hand weight of 5 pounds. It is used to assess upper



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body strength, needed for performing household and other activities of daily living.

### Strength Training Log

Each participant recorded the amount of weight used for the three arm and five leg exercises in each class.

### Participant Evaluation

At the end of the 12 classes, participants were asked to fill out an evaluation in which they rated certain aspects of the program and their health.

### Program Outcomes

#### Demographics

Ten participants completed the StrongWomen Program. The participants ranged in age from 37 to 75. All were Caucasian.

#### Functional Fitness Assessment

- 30-Second Chair Stand – There was a 130% increase in the average number of chair stands. Increasing

lower body strength allows women to rise from a chair or the toilet without assistance. The 75 year old participant wouldn't even try to do this in the pre-assessment. At the end of the six weeks, she was able to do 14 chair stands getting 2 to 3 inch off the chair. She commented that she felt that her balance had improved and wished the classes were offered more days of the week.

- **Arm Curl** – There was a 146% increase in the average number of arm curls performed from pre to post assessments. Older women find carrying items like their groceries or putting heavy items on high shelves difficult. One participant had a special reason for wanting to increase her upper body strength. She helps care for a teenage grandchild with physical limitations and was having to left the child. She increased the number of arm curls from 12 to 24 in the 30 second test. At the end of the program she was using 8 pound weights for the arm exercises.

### Strength Training Log

Dumb bells and leg weights were used in the classes. The leg weights are is increased by adding additional bags of sand. There was an increase between 122 - 179% in weight (both arms and legs) being lifted.

As the instructor, I also increased the weight that I was lifting from 1 pound dumb bells at the beginning to 4 pounds at the end of the second Strong Women Program.

### Participant Evaluation

Various aspects of the program and participant health were rated using a five-point Likert scale (1 = Not at all, 3 = Somewhat, 5 = Very much) with positive results. The results are reported as an average of the participants' responses below.

Aspect	Rating
Overall satisfaction with class	4.90
Instructor helpful	4.67
Health is better because of program	3.78
Physically stronger	3.90
More energy	3.80
Sleep better	3.10
Joints less painful	2.88

The results of the three evaluation tools indicate that participants experienced an increase in arm and leg strength, as well as other health benefits. Increased strength may improve functional ability so that people are able to perform activities of daily living and remain independent longer.

### FOR MORE INFORMATION

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