Americans tend to be relatively inactive. In 2002, 25% of adult Americans did not participate in any leisure time physical activities in the past month. Regular physical activity is important to one's health, sense of well-being, and maintenance of a healthy body weight. People with higher levels of physical fitness are also at lower risk of developing chronic disease. Conversely, a sedentary lifestyle increases risk for overweight and obesity and many chronic diseases, including coronary artery disease, hypertension, type 2 diabetes, osteoporosis, and certain types of cancer. Overall, mortality rates from all causes of death are lower in physically active people than in sedentary people.

The *Strong Women* program was developed by Dr. Miriam Nelson, PhD, an associate professor at Tufts University. The Strong Women Program is based upon research on how strength training and proper nutrition improve the health of women. It was designed to increase muscle strength in mid-life and older women. Research has demonstrated that exercise with weights (strength training) will increase strength, muscle mass and bone density in middle-aged and older women.

**Benefits of Strength Training**

**Arthritis Relief** – A 16-week program of strength training decreased pain by 43%, increased muscle strength and general physical performance, improved clinical signs and symptoms of the disease and decreased disability.

**Restoration of Balance and Reduction of Falls** – As people age, poor balance and flexibility contribute to falls and broken bones. These fractures can result in significant disability, and in some cases, fatal complications. Strengthening training when done properly and through the full range of motion, increase a person’s flexibility and balance, decreasing the likelihood and severity of falls.

**Strengthening of Bone** – Post-menopausal women can lose 1-2% of their bone mass annually. Strength training increases bone density and reduces the risk of fractures among women over 50.

**Proper Weight Maintenance** – Strength training is crucial to weight control, because individuals who have more muscle mass have a higher metabolic rate. Strength training can provide up to a 15% increase in metabolic rate, which is helpful for weight loss and control.

**Improved Glucose Control** – Studies show that lifestyle changes such as strength training have a profound impact of helping older adults manage diabetes and improve glucose control.

**Healthy State of Mind** – Strength training provides significant improvements in depression.

**Sleep Improvement** - People who exercise regularly enjoy improved sleep quality. They fall asleep more quickly, sleep more deeply, awaken less often and sleep longer.

**Healthy Heart Tissue** – One study found that cardiac patients gained not only strength and flexibility, but also aerobic capacity when they did strength training three times a week.
Most adults do not need to see their healthcare provider before starting a moderate-intensity physical activity program. However, men older than 40 years and women older than 50 years who plan a vigorous program or who have either chronic disease or risk factors for chronic disease should consult their physician to design a safe, effective program. Unstable medical conditions or severe trauma in the past six months are also an indication that you should not start a new exercise program without first checking with your health care professional.

All you need to get started are with the Strong Women program at the OSU Extension Office are comfortable clothes that are easy to move around in. Skirts may be worn. Low-heeled, sturdy, comfortable shoes or sneakers should be worn. High-heeled shoes and boots are not acceptable.

**Components of the Strong Women Program**

The Strong Women Stay Young program takes about one hour to complete and it is recommended that it be done 2 to 3 times per week on non-consecutive days, e.g. Tuesday and Thursday. Muscles need at least one day off between training sessions to rest, recover and ultimately to become stronger.

**Warm-up** – five to ten minutes of warm-up is essential for minimizing exercise-related injuries.

**Strength training** – this is the main part of the workout. Progression of intensity is the key to success. This means that the amount of weight lifted must continually increase as the participant becomes stronger. Strength training should be challenging, even difficult at times, but it should never hurt or cause pain. Pain is a warning sign to stop immediately and evaluate the situation. Each exercise will be performed 8 to 10 times slowly, followed by a rest period, and then performed 8 to 10 additional times. Each exercise is performed slowly.

**Cool-down** – five to ten minutes of cool-down is essential for minimizing exercise related injuries. In addition to preparing the body to stop exercising, the cool-down exercises in this program are designed to improve balance and flexibility by stretching the muscles of the body.

**Resources**

To learn more check out one or more of the following books.

- *Strong Women Stay Young*
- *Strong Women, Strong Bones*
- *Strong Women, Strong Hearts*
- *Strong Women and Men Beat Arthritis*
- *Strong Women Eat Well*
- *Strong Women Stay Slim*
- *The Strong Women’s Journal*

Also available is the video *Strong Women Stay Young* which is the basis for this program. *Strong Women* exercise programs are available through the OSU Extension Service in Tillamook. Classes start quarterly in March, June, September and December and are led by a trained volunteer. Contact the OSU Extension Service, 842-3433 for more information or to be notified about the next class series.