## Penn State Extension

# Creating Health & Nutrition Fact Sheets

People who are active have a lower risk for osteoporosis, especially those who do weight-bearing activities at least three times a week for a minimum of 30 minutes.

Muscles pulling on the bones build stronger denser bones. The more bone mass you build before age 25 or 30, the better off you will be during the years of gradual bone loss. Exercise can also help you maintain bone density later in life.

# Physical Activity for Best Bone Health

Besides strength training every other day, additional exercises for building bone include walking, jogging, hiking, stair-climbing, step aerobics, dancing, racquet sports, and other activities that require your muscles to work against gravity. Swimming and biking, although good for cardiovascular fitness, are

not the best exercises for building bone.

If you already have osteoporosis, you might wonder whether you should exercise at all. The answer for most people is YES. You should speak to your doctor to learn what types of exercises you can safely do to preserve bone and to strengthen your back and hips. Keep in mind, however, that exercise alone can't prevent or cure osteoporosis.

## **Exercise Tips**

 Even if you do not have osteoporosis, you should check



- with your health care provider before you start an exercise program.
- Remember to warm up before starting and cool down at the end of each exercise session.
- For the best benefit to your bone health, combine several different weightbearing exercises.
- Remember to drink plenty of water whenever exercising.
- Vary the types of exercise that you do each week.
- Combine weight bearing and resistance exercise with aerobic exercises to help improve your overall health.
- Bring your friend along to help you keep going or better yet, bring your family and encourage them to be healthy.
- Add more physical activity to your day; take the stairs vs. the elevator, park farther away, and walk to your co-worker's office rather than emailing.

## **Activities Affecting Different Ages**

**Ages 6–17 years:** 60+ minutes of moderate to vigorous physical activity daily; includes at least 3 days/week of aerobic and 3 days/week of strength training

Ages 18–64 years: 150–300 minutes of moderate or 75–150 minutes of vigorous physical activity per week; strength training at least 2 days per week

Ages 65+ years: follow adult guidelines as physically able; include balance activities if falling is a risk.

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### **Bone-Building Activities for Preventing Osteoporosis**

Initial/beginner	Moderate load/intensity/time*	Advanced load/intensity/time*
Walking	Walking uphill	Walking with weighted vest
Square dancing	Race walking	Walking with backpack
Yoga	Jogging	Race walking
Weight lifting	Weight lifting	Jogging
Low-impact aerobics	Step aerobics	Running
Slow dancing	Fast dancing	Soccer
Tai chi	Downhill skiing	Weight lifting
Gardening	Cross-country skiing	High-impact aerobics
Stair climbing	Soccer	Stair climbing with weighted vest
Elastic band exercises	Basketball	Basketball
House-cleaning activities	Volleyball	Hiking
Carrying groceries	Hiking	Backpacking
Bowling	Tennis	Jumping rope
Golf, pulling clubs		Gymnastics
Baseball/softball		Golf, carrying clubs

#### Key:

Initial/beginner = Start one or more of these activities on a regular basis. Get up and get moving!

Moderate = *Increase* your load, intensity, and time of physical activity. Do more, more often.

Advanced = *Challenge* yourself to keep increasing your load, intensity, and time of physical activities. Put effort into building bone!

Intensity = how hard the body is working during the exercise period. Moderate physical activity allows a person to carry on a conversation comfortable during the activity. Advanced/vigorous physical activity is intense enough to result in a significant increase in heart and breathing rate.

Time = duration; length of the training session.

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Source: U.S. Department of Health and Human Services 2008 Physical Activity Guidelines for Americans.

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<sup>\*</sup>Load = mechanical stress that stimulates the development of muscle and bone strength.