

Keeping Fit with OPTM

291 E. Main Street, Suite E * Los Gatos, CA 95023
Ph: 408-354-2223 Fax: 408-354-2228

Movement Is Life

Recent research of strength training across age groups has found that individuals of all ages achieve gains in functional capacity, strength, and general health. Muscle imbalances and poor dynamic control are associated with musculoskeletal injuries. Over 3,000,000 injuries to young people occur annually. As the average life span increases, the prevalence of disability grows in the geriatric population. Strength training may be used for injury prevention and must be used for rehabilitation.

Despite previous concerns, clinicians and scientists agree that resistance exercise can be safe and effective for children with the appropriate design and supervision from a qualified individual. Investigators show that boys and girls can increase muscular strength above and beyond normal growth and maturation provided adequate intensity and volume. Children, as young as 6, have benefited. One study showed 30-40% strength gains in preadolescents in an 8-20 week program, which was comparable to the gains adults experience.

Increased risk for epiphyseal plate fractures have not been reported. Resistance training will not stunt growth. However, there is a concern for injury if the program isn't designed and supervised by a qualified individual implementing age-specific guidelines.

Changes in body composition and functional capacity occur within the elderly as they advance in age. The following changes take place progressively: decreased muscle mass, proportion of Type II fast twitch muscle fibers, force/power generating capacity and bone mineral density. These changes are correlated with an increased difficulty to perform activities of daily living, risk of falls, and incidence of long term disability.

It has been shown that aging doesn't reduce the ability of the musculoskeletal system to

adapt to resistance exercise. Improvements in strength, bone mineral density, muscle mass, and function, are proven benefits the elderly experience from strength training. One 8-week study demonstrated that subjects improved their gait speed, stair climbing power, balance, spontaneous activity, and doubled their strength. Increased balance and bone mineral density may reduce the risk of falls and osteoporotic fractures.

At **OPTM**, all of the physical therapists have expertise in exercise prescription for people of different ages in conjunction with the knowledge of musculoskeletal pathology and rehabilitation that is needed to help these individuals. The appropriate intervention will help reduce the risk of injury and increase the quality of life.

Congratulations!

Paul Norquist, MPT, CSCS recently was certified as a Strength & Conditioning Specialist by the National Strength Coaches Association.