

Pilates Mat Program for Osteoporosis Clients

Guidelines and Exercises for the Pilates Professional



By Beth Begelman of Pilates Digest

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About the Author



Beth Begelman has been working in the fitness industry for over 10 years. Fitness and athletics have always been part of her life. After spending several years in the airline industry and in the corporate world, Beth began her career in the fitness industry.

She started as an aerobics instructor and went on to obtain training and certifications in personal training, mat Pilates, Pilates apparatus, yoga and golf specific fitness. Beth is certified as a Pilates apparatus instructor with the PhysicalMind Institute; her mat training was completed with STOTT PILATES®. Additionally she holds a certification with Mike Wright's Golf Pilates as a Pilates for Golf trainer. She has obtained the highest level certification in golf specific fitness with Advantage Golf and is a Master Golf Fitness Instructor and a level 3 Golf Fitness Professional through the Titleist Performance Institute.

Beth sits on the Advisory Board for Golf Fitness Magazine and is also a contributing writer. She is a co-founder of Pilates Digest, an online magazine for Pilates professionals and enthusiasts.

What is Osteoporosis?

Osteoporosis is a disease in which bones become fragile and can break easily. Fractures can occur anywhere but predominantly occur in the spine and hips. Because of those specific locations, persons suffering from osteoporosis are at greater risk of losing their ability to walk unassisted or remain living independently. This is more obvious with the elderly but can occur with younger people as well. Osteoporosis can progress without someone even knowing they have the condition. This is a huge issue because the disease progresses and no treatment is sought. The earlier a diagnosis of osteoporosis is made, the better the chances are of preserving bone.

How does it occur?

Osteoporosis occurs when the mass of bones decreases. This happens when new bone is replaced slower than old bone is removed. The process is called remodeling. osteoclasts are the bone cells responsible for the breakdown of old bone. While it is a normal metabolic process, when the body needs more calcium for certain functions and there isn't enough, osteoclasts pull calcium from bone. Osteoblasts are the bone cells that help to rebuild bone. The rebuilding process can take several months which is why broken bone heals much slower than a skin wound.

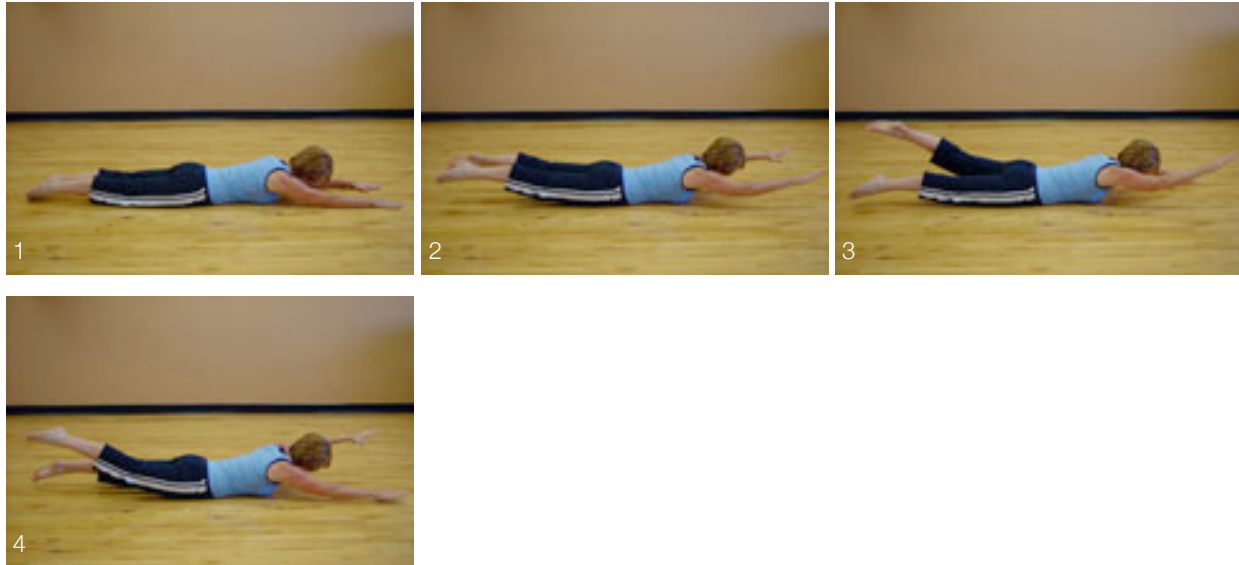
How is osteoporosis diagnosed?

Bone Mineral Density tests (Bone ultrasound densitometry or Dual x-ray absorptiometry) are done by a doctor to confirm an osteoporosis diagnosis, to determine the level of bone loss and to establish baseline density values (Hodgson, p55). These diagnostic tools measure the bone mineral content (how many grams of calcium and other bone minerals are present in a square centimeter). The denser the bone, the less likely one is for fracture. Ultrasound densitometry is a relatively inexpensive test that can be done very quickly in many doctors' offices. The machine is small and uses sound waves to measure bone density of the heel. Dual X-ray, also known as DEXA-scans are more costly for the consumer but offer more information because they can measure bone density of the spine and hips.

Who should be tested?

Postmenopausal women; men over the age of 70; all men, women and children who have been treated with corticosteroid drugs; anyone who is prone to broken bones; all men, women and children who have two or more risk factors meaning they are at high risk of developing osteoporosis.

15. Swimming



Focus: Spinal and hip extension, pelvic and shoulder stability

Purpose: Increase the strength in the spinal and hip extensors, the obliques, glutes and hamstrings, to increase stability in the pelvis and shoulders

Instructions:

- Lie prone with arms extended overhead and the legs extended, hip-distance and rotated laterally with pubic bone against floor
- Inhale to prepare and stabilize scapula
- Exhale and extend the hips, reaching the legs off the floor while simultaneously lifting the upper body and arms
- Inhale and stay lifted while alternately lifting one arm and the opposite leg. Exhale for a count of five then inhale for a count of five continuing to move arms and legs and keeping the torso as still as possible. Continue for 3-5 rounds of breathing
- Inhale and stop moving the arms and legs
- Exhale and release the upper body and legs back to the floor

Modifications:

- Place pad under ASIS/pubic bone if tender
- To decrease intensity alternate lifting one arm and the opposite leg off the floor.