

See special poster on other side

The Downward Spiral of Vertebral Osteoporosis

DEBORAH T. GOLD MD PHD AND
 STUART L. SILVERMAN MD

In the US alone, osteoporosis causes 700,000-750,000 vertebral fractures per year. There is a general misconception that, although they are more common, vertebral fractures have fewer consequences than hip fractures. Data published in the past decade show that vertebral fractures have equally devastating long-term effects in terms of diminished quality of life, decreased independence, and increased morbidity and mortality.

Focusing on the worst outcome of osteoporosis – death – the Fracture Intervention Trial (FIT), which followed over 6,000 healthy women over 4 years, showed that both hip and clinical vertebral fractures were associated with significant and substantial increases in mortality.

Increased mortality is one of many consequences of osteoporotic vertebral fractures; however, unlike hip fractures, only one-third of vertebral fractures receive clinical attention. Since recent data show that a single vertebral fracture increases the risk of further fractures, and that each subsequent fracture can lead to increased morbidity and mortality, it is vital that progress be made in the timely diagnosis and treatment of this condition. Left unrecognized and untreated, vertebral osteoporosis can lead to long-term consequences, including progressive kyphosis (curvature of the spine) and height loss, pain, and increasing deficits in physical, psychological, and/or social functioning.

Vertebral fractures more commonly occur spontaneously or from minimal trauma resulting from spinal loading during day-to-day activities, such as bending forward, lifting objects, and climbing stairs. While back pain is the most common

symptom of vertebral fractures, indeterminate or absent signs and symptoms of vertebral fracture may account for the large proportion (up to 75%) of radiographic vertebral fractures that remain undetected in the general population.

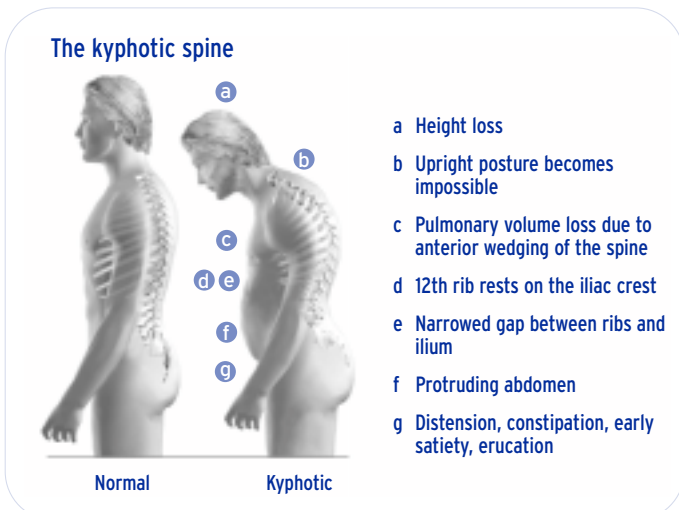
Patients who experience a long-term reduction in their ability to participate in social activities, due to pain and disability secondary to fracture, typically experience loss of social roles. A recent observational study in women with vertebral fractures showed that osteoporosis interfered with their ability to perform daily activities and substantially increased their fear of falling. Each vertebral fracture increases the risk of subsequent fracture, initiating a downward

spiral of physical, social, and psychological consequences. The growing recognition of the detrimental consequences of vertebral fracture and an aging global population indicate a pressing need for further study toward the prevention, diagnosis, and treatment of these fractures and their consequences. ●

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Fall Calendar

FORE's Upcoming Educational Programs

OsteoLife Osteoporosis Exercise Program

Community based group exercise classes provide safe, effective physical training to those at risk for or who want to manage the consequences of osteopenia and osteoporosis. For more information, contact OsteoLife at (510) 832-2663 x41 and leave a message. Available at the Del Valle Center in Walnut Creek, Rossmoor, and downtown Oakland. Call for dates and times.

New Classes in Posture

For more information, contact OsteoLife at (510) 832-2663 x41 and leave a message.

October 1 – 6 p.m. - 9 p.m. – Omni San Francisco Hotel
 Northern California Bone & Mineral Club presents **Clifford Rosen, MD**, Director of the Maine Center for Osteoporosis Research and past President of the American Society of Bone Mineral Research. Category 1 CME credit offered

November 11 – 6 p.m. - 9 p.m.
 Claremont Resort & Spa, Berkeley
 Northern California Bone & Mineral Club presents **Male Osteoporosis** by Eric Orwoll, MD, Director of General Clinical Research Center at Oregon Health Services University. Category 1 CME credit offered

December 5 – 8 a.m.- 4 p.m.
 Claremont Resort & Spa, Berkeley
Center of Excellence
 A Mini-Fellowship on osteoporosis diagnosis, prevention and treatment, quality assurance of bone density testing, exercise and nutrition. Category 1 CME credit offered.

FOR ALL EVENTS, CALL 510-832-2663 EXT. 38 OR
WWW.FORE.ORG TO REGISTER

Ask the Doctor

Aenor Sawyer, MD

QUESTION: I am a 56-year-old woman who began having pain in my mid back 4 weeks ago. I don't recall a specific injury and was wondering what exercises would you recommend?

ANSWER: Although exercise can relieve some types of back pain, it may aggravate others. Therefore, it is important to specifically identify the cause. There are many reasons for new back pain, including muscle strain, disc herniation, disc degeneration, arthritis, and even fracture. In your age group, a very common cause of back pain as you described is "vertebral compression fracture" or VCF.

After menopause, women are at particular risk for developing decreased bone density. As bone density decreases, so does the skeleton's ability to withstand stresses and loads applied to it. Even simple activities of daily living, such as sitting in a chair, bending forward or attempting to lift objects, can result in a fracture in osteoporotic bone. A vertebral compression fracture typically involves the "body" of the vertebra and can cause a forward bending posture that you may have seen in elderly people. This condition, previously called a Dowager's hump, is now called by its proper name of "kyphosis" or forward curving of the spine. In addition to the forward curve, a VCF also causes a loss in overall height due to the collapse of the vertebral body.

The doctor will take a thorough history to determine the pattern of your back pain and your risks for osteoporosis. On examination, an easily measured indicator of VCF is a loss in height. In addition, a change in your posture, such as increased forward curvature, can be an indication. When your back is examined, pressure or tapping on the corresponding vertebra usually causes increased pain. Beyond the history and physical, spine x-rays are very valuable in identifying the presence of vertebral compression fractures. X-rays alone are not useful for determining the presence of osteoporosis, and therefore a DXA study ("bone density test") should also be performed to better identify the underlying cause of the fracture.

If your back pain is due to a vertebral compression fracture, the treatment is usually based on the level of discomfort. Traditionally, treatment includes rest, pain relieving medication, and sometimes bracing. There are now 2 minimally invasive surgical techniques, Verte-broplasty and Kyphoplasty, which have been shown to greatly shorten the painful period associated with VCFs.

Although exercise can be an important ingredient in the treatment of your back pain, I recommend that a thorough work-up be done first to identify the cause of your pain. Certain exercises in the presence of a vertebral compression fracture can be harmful or at the very least can increase your pain. Once the cause of your pain is established and a treatment plan is designed, specific exercises under the guidance of a physical therapist can be of great value to you. ●

Dr. Sawyer is an orthopedic surgeon specializing in pediatrics, and a member of FORE's Medical Advisory Board.

Letter from the Executive Director

Osteoporosis is a silent disease. In fact, often the first symptom is height loss due to compression fractures of the spine. Unfortunately, just because these fractures are painless does not mean they are harmless. For every compression fracture that occurs, a person loses 10% of their lung capacity. In addition, for every fracture that occurs, a person's risk of future fracture goes up exponentially.



Many people still believe that osteoporosis is just a natural part of the aging process. This is simply not true. Osteoporosis is a disease that is both preventable and treatable. Prevention begins with a diet rich in calcium along with weight bearing exercise. Another important part of prevention is finding those with the disease and getting them treatment. Ask your doctor about a bone density test.

Lily Hearst is an inspiration to all of us as we strive to live longer and maintain our health. With stresses in our daily lives and many competing health concerns, it is easy to forget about our bone health. I encourage you to take the steps to be stay strong and tall.

There are many resources that FORE can recommend. Please call us with your questions and concerns.

Kathleen



Diet and Exercise – a Rx for healthy aging!

BY LOUISE JOANES

Lily Hearst held court at FORE's offices recently as she waited for her first bone density test. Lily is 106 years old and stands 4'7" tall. She dazzled both staff and other patients with stories of her youth and secrets to her longevity.

"I never drink coffee," says Lily. Born in Austria in 1897, Lily attributes her good health to starting life with good habits and a positive mind. As a child, she drank hot cocoa made with milk, walked everywhere (including 45 minutes each way, everyday, to school), and went mountain climbing, skiing, and ice-skating. One of Lily's strongest qualities is her fierce independence, preferring to do everything she can for herself.

In 1938, soon after the start of WWII, Lily moved with her husband and two children to East Orange, NJ. Her husband passed away in the 1980's and she moved to California to be closer to her son. When not at home in her own house on her son's property, she is at the North Berkeley Senior Center, taking classes and socializing. She practices seated exercise using the Feldenkrais Method, which utilizes movement to develop body awareness, flexibility, and coordination. Additionally, she swam daily, only having stopped six months ago.

Lily demonstrates the effectiveness over time of being physically and mentally fit. A former member of the Vienna Orchestra, she continues to practice the piano every day and play at the senior center before lunch. She goes to the opera every Saturday and keeps herself up to date on current events.

Although she has done and seen much through the years, she is very modest about her numerous accomplishments. Lily enchants and amazes everyone she comes into contact with.

Due to her healthy lifestyle, her strong will and her independent spirit, Lily is in excellent physical and mental health. Her advice to all who ask is "Never say, 'No', to anything. You can do it!" ●

FORE Partners with Safeway Stores Thanks are in order to our Community Screening team who scanned 600 people at three San Francisco Safeway stores during Osteoporosis Month. The customer response was so enthusiastic that Safeway's Regional Pharmacy Manager Frank Tarantino, PharmD, has asked FORE to provide bone density screening at Safeway's stores throughout Northern California. Go to our website for a store location near you.

Heritage Club Launched

BY MICHAEL WEINTRAUB

The FORE Heritage Club met for its first in a series of educational events for donors on July 23 at the home of board member Mike Weintraub. The purpose of the event was to express the appreciation of the Foundation to its donors, by providing estate and legal planning information designed specifically for them. "Although it is very important that all FORE's friends know we greatly appreciate bequest gifts," Weintraub said, "most of our donors need far more basic estate planning information than how to make a bequest in their wills."

Weintraub went on to explain, "Many of our donors have a hard time keeping up with tax law changes, and interestingly, don't have a relationship with a financial or legal professional they trust to give them advice in a pressure free environment." "What we have tried to do is provide that advice, from qualified professionals who are already friends of the FORE, in a relaxed and informal manner."

More than 20 friends of the Foundation attended the first seminar and expressed strong interest in regular meetings. For further information about the FORE "Heritage Club" educational programs, or about how to remember FORE in your estate plan, contact Terry Fries, FORE Development Director, at (510) 832-2663 x33. ●

Seeking Women Who Have Reached Menopause

You, your mother, or other women you know may be eligible for a Foundation for Osteoporosis Research & Education study that addresses pressing health concerns for all women such as

- Menopause | Osteoporosis | hormone replacement therapy
- Help the fight against diseases and health problems that affect women worldwide by participating in one of our studies. Eligible participants may receive at no cost:
 - free examinations
 - compensation for time & travel
 - our quarterly newsletter

All study related procedures and exams are performed under the supervision of FORE's founding doctors Risa Kagan, MD and Elliott N. Schwartz, MD. To find out more, please call the Research Department 510/832-2662, x 55 or contact us via e mail: Studies@fore.org

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