

Osteoporotic fracture

In osteoporosis, the organic components that maintain bone elasticity are degraded, making the bone susceptible to fracture. Figure 1a shows the structure of a healthy bone with many bone balls and Figure 1b then demonstrates the osteoporotic bone with significantly fewer bone balls.

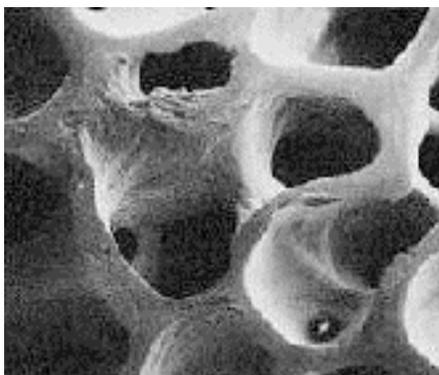


Figure 1a

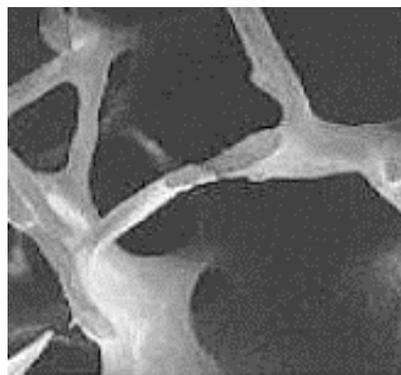


Figure 1b

Fractures in osteoporosis occur most frequently in the spine in older people, especially in women. The prevalence is very high with 177 diagnosed vertebral fractures per 100,000 people annually. The fractures most commonly occur in the thoracic and upper lumbar spine and can result in painful deformity.

The main symptom is the back pain, which usually occurs immediately, usually after a minor trauma or spontaneously. Often this symptom is not recognized in time. The result is a deformity with curvature and the secondary conditions of chronic pain with a reduction in physical performance. It is important for the therapy that the osteoporosis fracture is recognized as early as possible.

Until recently, medical treatment consisted exclusively of the administration of painkillers, bed rest and a support corset. Their efficacy was often ineffective and patients continued to suffer from pain. Conventional surgical treatment is too invasive and the complication rate is too high due to the reduced fixation possibilities with brittle bone. A proven, minimally invasive technique, which is performed under local anesthesia, has recently become available. By sealing the defect zone in the vertebral body with bone cement, it is possible to achieve rapid freedom from pain with immediate ability to bear weight and return to normal everyday life.

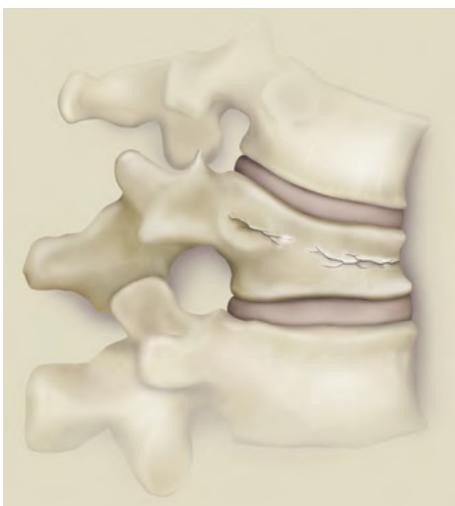


Figure 2



Figure 3