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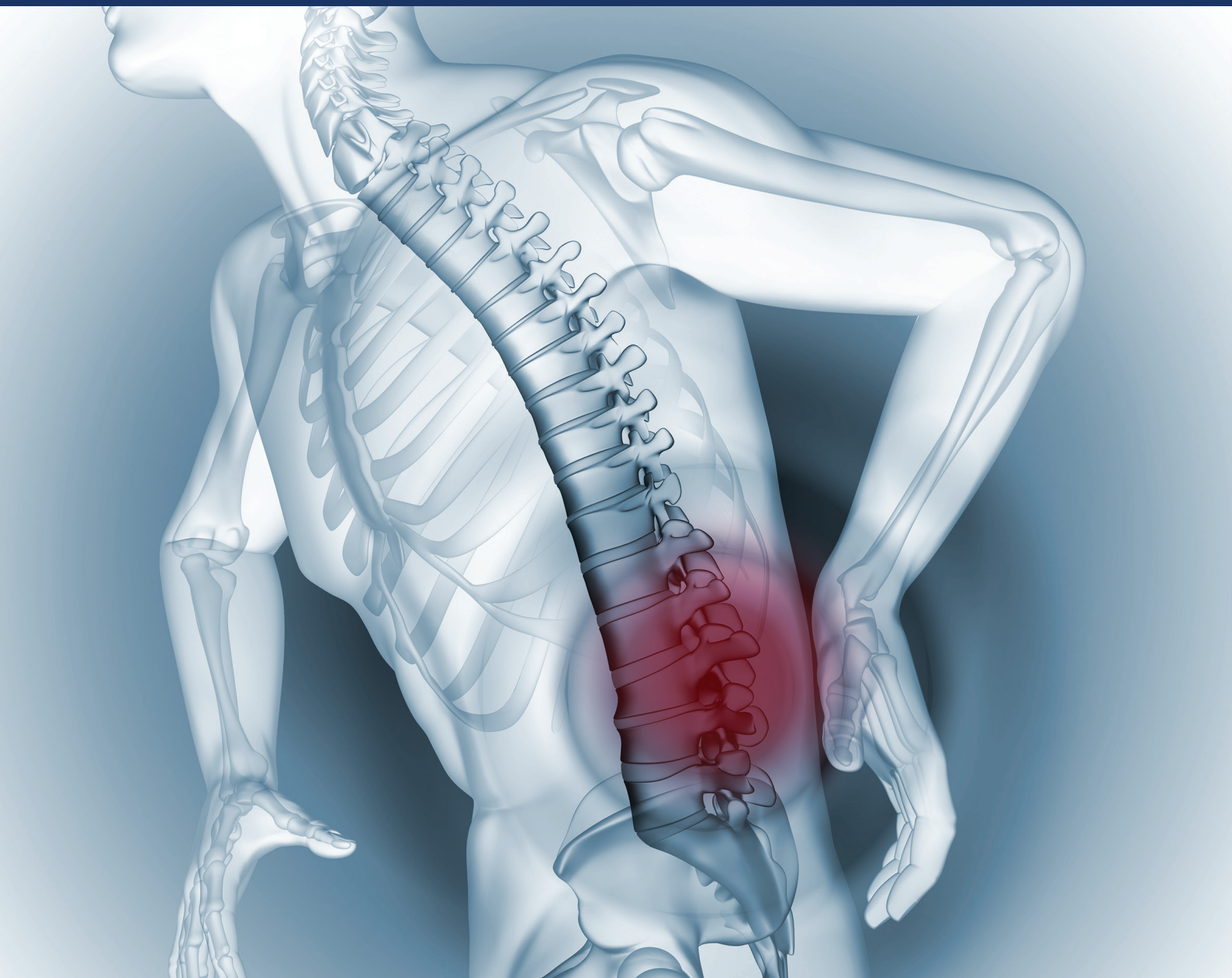
VERTEBRAL FRACTURES

DUE TO OSTEOPOROSIS



VERTEBRAL FRACTURES DUE TO OSTEOPOROSIS

Osteoporosis is a disease which causes the skeleton to become weak and fragile – resulting in broken bones (known as fragility fractures). Vertebral (spine) fractures due to osteoporosis are a major cause of pain and disability, as well being ***powerful predictors of future fractures****. Nevertheless, they often remain unidentified and the underlying cause remains untreated - leaving patients unprotected against a cascade of more broken bones.*

MOST COMMON TYPE OF FRACTURE DUE TO OSTEOPOROSIS

In **Caucasians**: ca. **50% of women** & **20% of men** aged 50+ years **will have a fragility fracture** in their remaining lifetime.[6]

Vertebral fractures are the **most common osteoporosis-related fracture.**[1-4]

One **new vertebral fracture** is estimated to occur **every 22 seconds** worldwide.[5]

The **incidence of vertebral fractures** in both men & women aged 50+ rises with age; **more women affected** than men.[7]

UNDER-DIAGNOSED AND UNDER-TREATED

› **Up to 70% of vertebral fractures remain undiagnosed.** [9, 10]

› Under-diagnosis of vertebral fractures occurs for various reasons – including the fact that **back pain is often attributed to other causes** by both patients and doctors, or the need for spine imaging in a patient with osteoporosis risk factors and back pain is not recognized by the doctor.[10]

› Even if the fracture is visible on an X-ray, radiologists may fail to spot or clearly report a vertebral fracture: **the proportion of vertebral fractures that go unrecognized on an X-ray is reported to be as high as**:

[10]

46% IN LATIN AMERICA | **45%** IN NORTH AMERICA | **29%** IN EUROPE, SOUTH AFRICA AND AUSTRALIA

SERIOUS, LIFE-ALTERING IMPACT ON SUFFERERS

Vertebral fractures are associated with an **8-fold increase in mortality rates**.[11, 12, 13]

They can have a **serious impact on health and quality of life**, affecting the ability to carry out routine daily activities and to live independently.[14]

Consequences include: **spinal deformity** & **height loss**; severe and disabling **back pain**; **immobility**; **loss of independence**; **depression**; increased number of **bed days**; **breathing difficulties**; reflux and other **gastrointestinal symptoms**, and **incontinence**. [15,16]

As a result:

The psychological and social impact is profound, frequently leading to depression, loss of self-esteem, fear of falling, and social isolation.[17,18,19]

ENORMOUS AND GROWING ECONOMIC COSTS

The direct costs of vertebral fractures were estimated at:

EUROPE	USA
2005 [20, 21]	2005 [20, 21]
719 MILLION €	1 BILLION $

The cost of all osteoporotic fractures is expected to rise markedly in the next few decades[24]:

USA	USA
2020 [24]	2025 [24]
22 BILLION $	25 BILLION $

› **One-third of vertebral fractures come to clinical attention** and account for as many hospital bed days as other common medical conditions.[22]

› A UK study found that every vertebral fracture accounts for 14 additional visits to a general practitioner in the year after fracture.[23]

POWERFUL PREDICTORS OF FUTURE FRACTURES

EARLY IDENTIFICATION AND TIMELY TREATMENT FOR OSTEOPOROSIS IS ESSENTIAL!

› The presence of **a vertebral fracture** not only increases the risk of new vertebral fractures, but also **increases the risk of ANY fracture** – including hip fractures.[3, 8, 13, 25]

20% OF WOMEN WITH A RECENT VERTEBRAL FRACTURE WILL SUFFER A NEW FRACTURE WITHIN A YEAR

→ The risk increases with the number and severity of vertebral fractures. [25, 26]

› **Pharmacological treatment for osteoporosis reduces the risk of fracture within 6-12 months by 50-80%**.[27]

› It is important to identify those individuals with vertebral fractures who are osteopenic rather than osteoporotic, and who may otherwise not be considered for pharmacological treatment.[28]

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