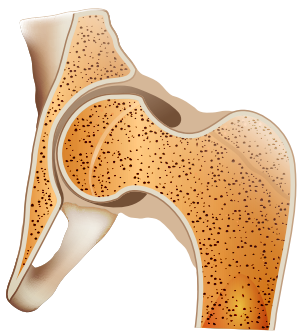
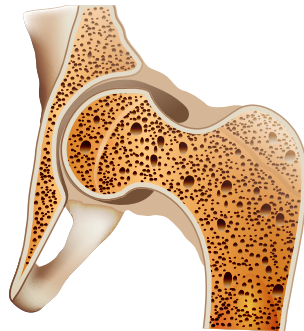


## STOP BONE LOSS BEFORE IT STARTS



Normal Bone



Bone with Osteoporosis

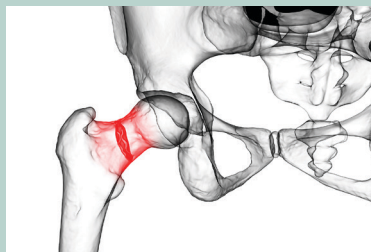
**Osteoporosis is a disease of the bone that is:**

- Age-related
- Painless
- Progressive
- Often silent until a fracture occurs

**But bone loss can be prevented and treated.**

## Why screening for osteoporosis is important:

- Osteoporosis-related fracture occurs every 3 seconds around the globe.
- 1 in 3 women and 1 in 5 men who are 50 and older will have a fragility fracture.
- The most common fractures associated with osteoporosis occur at the hip, spine and wrist.
- Up to 14% of women aged 65 and older with an initial clinical spine, hip, femur or clavicle fracture, will experience another fracture.



## RECURRING FRACTURES

**UP TO  
14%****AGAIN WITHIN  
A YEAR****DOUBLE  
THE RISK****WITHIN  
2 YEARS****TRIPLE  
THE RISK****WITHIN  
5 YEARS**

## In the USA:

- Approximately 300,000 hip fractures occur on an annual basis
- Hip fracture mortality rate for men is 31% and women is 17%
- 25% of Americans move from the hospital to a nursing home and never return "home"
- 50% never regain their previous function
- Six months after a hip fracture, only 15% of patients can walk across a room unaided

## Who should be screened?

### Screening recommendations based on the 2023 International Society for Clinical Densitometry (ISCD)

Talk to your provider about Osteoporosis screening if you fall in these categories:

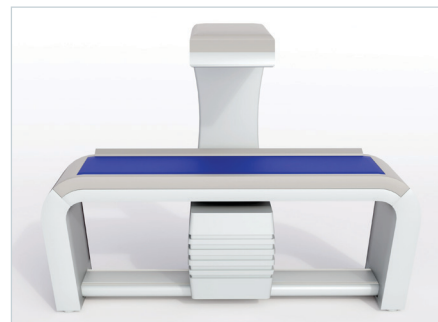
- Women aged 65 and older
- Men aged 70 and older
- Adults with a fragility fracture

### How your bone mineral density (BMD) or “bone health” can be checked

Dual-energy x-ray absorptiometry (DXA) is a standard of diagnosis for osteoporosis and measures BMD. It is:

- Widely accessible
- Easy to use
- Low radiation exposure

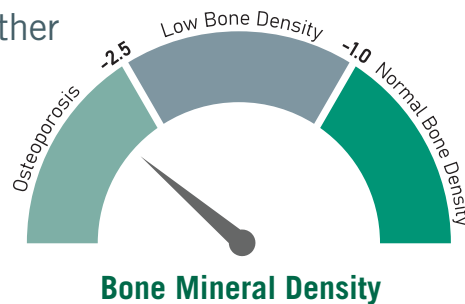
## DXA SCANNER



## Common causes of bone loss:

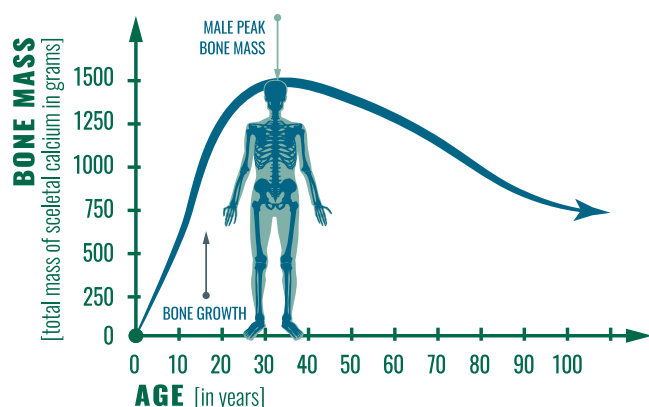
The most common cause of bone loss in women is an estrogen deficiency, typically due to menopause. Other contributing factors may include:

- Chronic use of some medications
- Some endocrine conditions
- Gastrointestinal and renal disorders
- Cardiovascular disease
- History of vitamin D deficiency

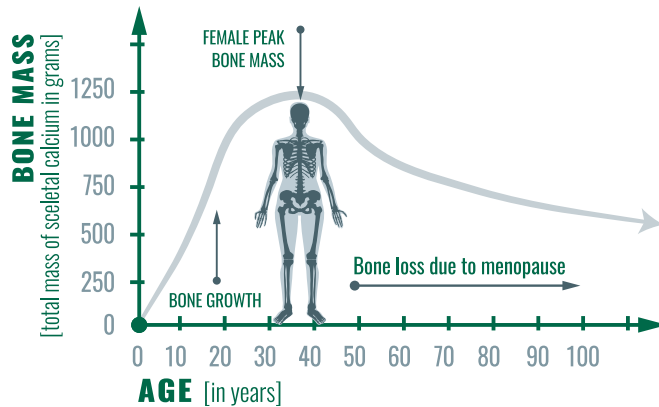


## PEAK BONE MASS THROUGHOUT LIFE

### DECREASING BONE MASS WITH AGE IN MEN



### DECREASING BONE MASS WITH AGE IN WOMEN



## What can you change to prevent bone loss?

### Modifiable (controllable) risk factors



**SMOKING AND ALCOHOL USE**



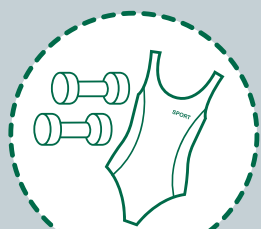
**VITAMIN D DEFICIENCY**



**DIET**



**STRESS**



**PHYSICAL ACTIVITY**

### Nonmodifiable (uncontrollable) risk factors



**AGE**



**FAMILY HISTORY**



**PREVIOUS FRACTURE/S**



**GENDER**



**NATIONALITY**

## Osteoporosis care begins with fall prevention:

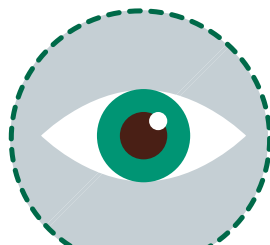
### These five common factors can raise your risk of falling:



CHRONIC CONDITIONS



MEDICATIONS



POOR VISION



BALANCE



HOME SAFETY

### Scan to explore bone health resources:



### Bone Health Fall Prevention Interactive House:

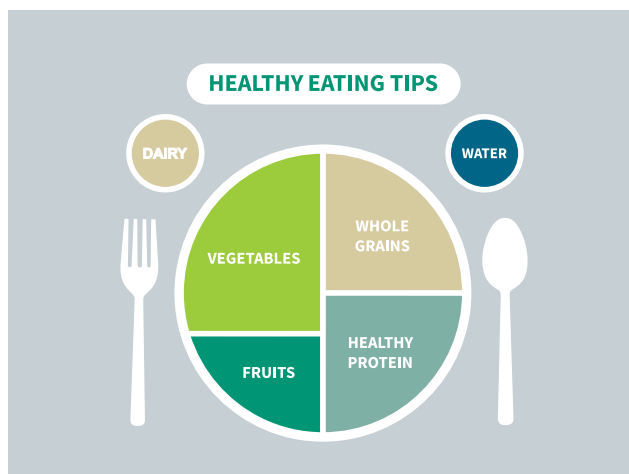


An engaging, interactive tool focused on home safety to help prevent falls.

For more information and to access the Bone Health Fall Prevention Interactive House, please scan the QR code.



## Maintaining a healthy lifestyle is essential for strong bones.



To learn more, scan the QR code to access the Bone Health Nutrition Brochure.

### Osteoporosis: What not to do

- Slouch forward when standing or sitting
- Perform exercises or activities that cause excessive bending forward or twisting at the waist
- Smoke or vape as it has negative effects on your bone health

### Osteoporosis: What to do

- Pay attention to good posture while sitting and standing
- Bend at your hips when picking up items from the floor
- Perform weight bearing exercises
- Practice fall prevention strategies



## Benefits of Physical Activity:

Please speak with your doctor prior to beginning an exercise program.

- Increase your strength to move more easily
- Improve balance to reduce your risk of falling
- Improve or maintain your posture
- Decrease pain in joints and muscles
- Improve quality of sleep, energy and mood



To learn more about how physical activity can help delay the progression of osteoporosis, scan the QR code.

Disclaimer: \*Not all exercises are suitable for everyone, especially if you have some chronic or recurring conditions, it may result in injury. Please consult with your health care professional before starting any exercise program to determine if it is right for you. Do not start exercises if your health care provider advises against it. This exercise information is designed for educational purposes only.

## Osteoporosis treatment can reduce the risk of osteoporosis related fractures

### Commonly used osteoporosis medications are:

- Bisphosphonates:
  - Alendronate
  - Risedronate
  - Ibandronate
  - Zoledronic acid
- Teriparatide and abaloparatide
- Denosumab
- Romosozumab
- Raloxifene and bazedoxifene

### Overall, the approved osteoporosis medications are safe and effective:

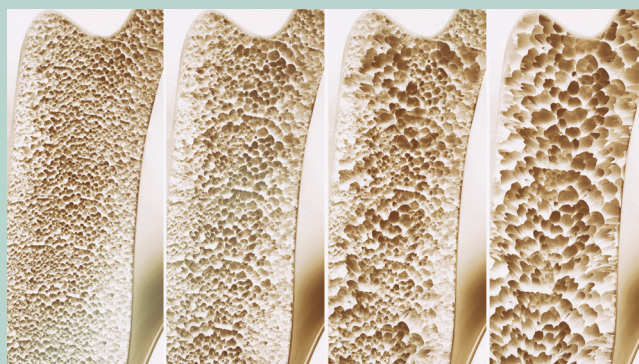
- The serious side effects are rare.
- The treatment benefit such as decreased risk of fracture far outweighs the rare serious side effects.
- Described serious but rare side effects are an atypical femur fracture (AFF) and osteonecrosis of the jaw (ONJ) that can be seen mostly when high doses of some osteoporosis medications are used in cancer patients.
- The doses used for osteoporosis treatment are much lower and AFF and ONJ are very rare.

### The risk of hip fracture can be reduced by:

**40%**

### Vertebral fractures can be reduced by:

**30-70%**



### References:

- International Osteoporosis Foundation. "A Fracture Every 3 Seconds Worldwide – That's Osteoporosis." October 18, 2019. <https://www.osteoporosis.foundation/news/fracture-every-3-seconds-worldwidethats-osteoporosis-20191018-0900>
- International Osteoporosis Foundation. "About Osteoporosis." <https://www.osteoporosis.foundation/patients/about-osteoporosis>
- Balasubramanian, A., Zhang, J., Chen, L., Wenkert, D., Daigle, S. G., Grauer, A., & Curtis, J. R. (2019). Risk of subsequent fracture after prior fracture among older women. *Osteoporosis International*, 30(1), 79–92. <https://doi.org/10.1007/s00198-018-4732-1>
- International Society for Clinical Densitometry. "Official Positions 2023." <https://iscd.org/official-positions-2023/>
- Poursmaeili, F., Kamalidehghan, B., Kamarehei, M., & Goh, Y. M. (2018). A comprehensive overview on osteoporosis and its risk factors. *Therapeutics and Clinical Risk Management*, 14, 2029-2049. <https://doi.org/10.2147/TCRM.S138000>
- Bone Health & Osteoporosis Foundation. "Medication Adherence." <https://www.bonehealthandosteoporosis.org/patients/treatment/medicationadherence/>