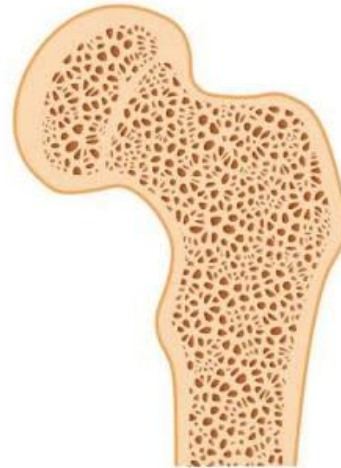


Building Bone Density... and Why It Matters!



What Is Bone Density?

- Bone is living tissue that is constantly being broken down and rebuilt.
- Bone density is how much mineral, mainly calcium, is packed into your bones.
- Denser bones are stronger and less likely to break.
- We build bone until we reach our peak, around our late 20s to early 30s.
- After that, we slowly start to lose more than we build.
- However, if bone density is already low or moderate it can be improved!

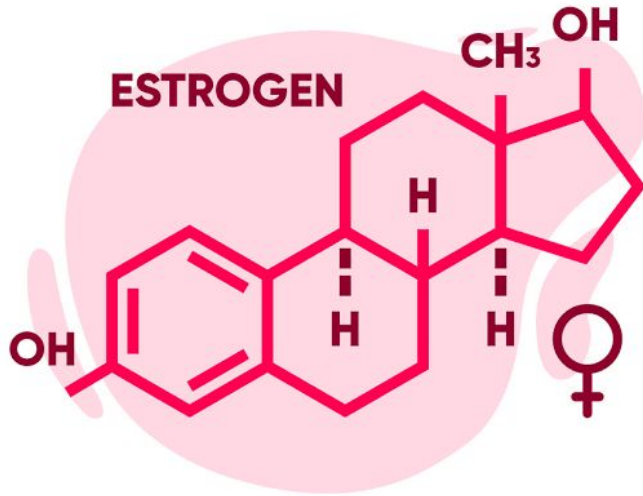


Healthy bone



Osteoporosis

Why 40+ Is the Critical Window



- Estrogen helps protect bone by slowing down how quickly it's broken down.
- As estrogen drops through perimenopause and menopause, breakdown rate starts to increase.
- Women can lose up to 20% of their bone density in the five to seven years after menopause.
- This makes the years either side of menopause the most important time to act.

The DEXA Scan & Your T-Score

- Bone density is measured with a DEXA scan, a quick, painless, low-dose X-ray.
- It usually looks at your hip and lower spine, the areas most at risk of serious fractures.
- You lie fully clothed on a table for around 10 to 20 minutes.
- Your result is given as a T-score.
- A score of **-1.0 or higher** is normal bone density.
- A score **between -1.0 and -2.5** is osteopenia, meaning lower than ideal. Treat this as a warning sign.
- A score of **-2.5 or lower** is osteoporosis.





Why Is It So Important?

- Bone loss has no symptoms. You can't feel it happening. For many women, the first sign is a broken bone.
- Studies show as many as 1 in 3 women over 50 will have a fracture caused by osteoporosis.
- The most common sites are the wrist, the spine, and the hip.
- A hip fracture can mean losing your independence, and many people never fully regain their previous mobility.
- Strong bones are what let you keep doing the things you love.
- Think of lifting your grandchildren, carrying the shopping, travelling, gardening, and saying yes to adventures.
- This is your enjoyment goal in action - the number on a scan is about the life you want to keep living!

Bones Respond to Load

- Bone adapts to the forces placed on it.
- When your muscles pull on your bones and you work against gravity, bone cells sense the strain and lay down new bone.
- The load needs to be more than your body handles in daily life.
- Walking, swimming, and cycling are great for your heart, but on their own they don't load bone enough to build it meaningfully.
- For bone, short and challenging beats long and easy.



The Most Effective Approach: Lift Heavy and Add Impact & Balance



- In one study, postmenopausal women with low bone density did 30 minutes of heavy lifting twice a week for eight months, using sets of about five reps at roughly 80 to 85% of their maximum.
- Their bone density improved at both the spine and the hip, while the group doing light exercise did not see the same benefit.
- With good coaching and form, heavy lifting was shown to be safe.
- Prioritise movements that load the hips and spine, such as squats, deadlifts, lunges, overhead presses, and loaded carries.
- Gradually increase the weight over time. Bone keeps adapting only when the challenge keeps growing.
- Short bursts of impact, such as small jumps or hops, are also beneficial.

Heavy Is Relative!

- “Heavy” means heavy *for you*, not compared with anyone else in the room.
- Good form always comes first. The weight goes up only when the movement looks right.
- Push yourself in lower reps sets in particular but also other rep ranges.



Workout breakdown:

1. Bulgarian Split Squat – 5 x 5 per leg (heavier!)
2. Kettlebell Sumo Deadlift Holding Two KBs – 5 x 5 (heavy!)
- 3a. Kettlebell Romanian Deadlift – 3 x 12-15
- 3b. Bodyweight Glute Bridge – 3 x 12-15
- 4a. Kettlebell Overhead Press – 3 x 12-15
- 4b. Kettlebell Upright Row – 3 x 12-15
- 5a. Plank – 20 seconds
- 5b. Side Plank Right Side – 10-15 seconds
- 5c. Side Plank Left Side – 10-15 seconds
- 5d. Plank – 20 seconds

90 seconds rest on sets of 5 x 5, 45-60 seconds rest on sets of 12-15, 10 seconds rest between planking movements and 45-60 seconds at the end of each quad set of planks

Questions?

