Nutrition and Exercise for Bone Health

Strong bones support overall health, mobility, and help prevent injury. **Follow these habits to maintain bone health and strength:**

- **Eat a balanced diet** rich in calcium and vitamin D.
- **Check your vitamin D levels** to ensure you are getting enough.
- **Stay active** with weight-bearing and muscle-strengthening exercises.
- **Avoid smoking & limit alcohol**, as both can weaken bones.

Calcium

Calcium is essential not just for strong bones, but also for vital functions like muscle movement, nerve signaling, and blood clotting. If you don't get enough calcium from your diet, your body will take it from your bones to support these functions, which can weaken bones over time.

How Much Calcium Do You Need?

- **Ages 19-50:** 1,000 mg per day
- **Ages 51+:** 1,200 mg per day

Best Food Sources of Calcium

- **Dairy:** Milk (300 mg/8 oz), Yogurt (300 mg/6 oz), Cheese (200 mg/1 oz)
- **Non-Dairy:** Sardines (371 mg/3 oz), Kale (179 mg/cup cooked), Broccoli (72 mg/spear), Fortified orange juice (137 mg/cup)

Choosing the Right Calcium Supplement

- **Calcium carbonate:** Affordable, best taken with food.
- **Calcium citrate:** Absorbs easily, can be taken anytime.
- **Tip:** Your body can only absorb up to 600 mg of calcium at a time; split doses if needed to ensure you're getting the full benefits of your supplement.

Vitamin D

Vitamin D helps your body absorb calcium, supports muscle function, and improves balance, reducing the risk of falls and fractures.

How Much Vitamin D Do You Need?

- **Ages <50:** 400-800 IU
- **Ages 51+:** 800-1,000 IU

Sources of Vitamin D

- **Sunlight:** 10-15 minutes daily (varies by skin tone, season, and time of day)
- **Food:** Swordfish (570 IU/3 oz), Salmon (447 IU/3 oz), Fortified milk (120 IU/cup), Fortified cereal (40 IU/serving)

Choosing the Right Vitamin D Supplement

- **D2 (Ergocalciferol):** Prescription-based.
- **D3 (Cholecalciferol):** More easily absorbed.
- **Caution:** Do not exceed 4,000 IU daily unless prescribed.

Exercise

Bones, like muscles, respond to exercise by becoming stronger. Weight-bearing and muscle-strengthening exercises help build bone strength, improve coordination, and balance, reducing falls and fractures. About 30 to 60 minutes of weight-bearing exercises at least three times a week can help maintain bone strength and prevent bone loss.

Weight-Bearing Exercises

- **Low-impact:** Walking (3-5 miles weekly), elliptical, low-impact aerobics.
- **High-impact:** Running, dancing, tennis, jumping rope, stair climbing.

Muscle-Strengthening Exercises

- Lifting weights (dumbbells, machines)
- Resistance bands
- Standing on toes, balance exercises

Before You Start:

- Check with your doctor if you have osteoporosis, heart disease, or other conditions.
- Avoid exercises that twist or bend the spine.
- Start with low-impact exercises if bones are weak.

For more information please call (585) 275-5321
or visit BoneHealth.URMC.edu

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