# ABCs OF OSTEOPOROSIS TREATMENT

There are many practical ways you and your health care provider can treat osteoporosis (weak bones). Prevention is about more than drugs! Your life and health matter. Below are ways you can prevent **fragility fractures**, broken bones occurring with a fall from standing or lesser amount of force.

## "A" Is For "Active"

Bones are strengthened by forces from gravity and muscles. *Active* older women keep good balance with ageing and are less likely to fall. Falling causes most fractures. "Active" means walking, doing Tai Chi or something else physical most days. Start gradually and slowly to achieve and maintain the **30-active-minutes-aday** goal despite difficulties with heart or joints.

### "B" Is For "Brawny"

Thin older women with a body mass index less than 22 or who weigh less than they did at 25, are more likely to break a bone if they fall. Both muscle and fat weight matter. Bone loss occurs with any weight loss so if you need to lose, go slow (½ pound/wk). The strongest osteoporosis therapies can't restore bone strength in skinny women.

#### "C" Is For "Calcium"

Calcium is the building block of bones. 1,200 mg of calcium a day of are needed by all women over 50. 1,500-2,000 mg/day are needed for those with osteoporosis. Take it with meals and at bed. Each high-calcium food (glass of milk/supplemented drink), ¾ cup yogurt or cheese hunk has 300 mg. If you can't get enough from food, replace some servings with "elemental" calcium.

#### "D" Is For "Vitamin D"

Vitamin D, that skin can create from sunlight, is needed to absorb calcium. All older women need 600 IU a day. Women with osteoporosis or who are heavy need 1-3,000 IU a day. Vitamin D is stored in fat and may be taken once a day!

# "E" Is For "Easy Going"

Does a positive, relaxed approach to life help

bones? Yes! When worried or tense our bodies make too much cortisol, a stress hormone that causes bone loss. Learning and practicing relaxation/meditation daily will provide health benefits for far more than just bones.

## "F" Is For "Bone-Forming Medication"

Bone renews itself throughout the life cycle. Bone-building cells, called "osteoblasts", however, are slow workers that get even slower with age. Progesterone, a natural woman's hormone and its cousin medroxyprogesterone stimulate osteoblasts to build new bone. Progesterone works best in partnership with calcium and Vitamin D as well as other medications that slow bone loss (see below). Natural progesterone taken by mouth also has a "side-effect" to increase deep sleep. PTH (parathyroid hormone) by daily sub-skin injection acts to increase new bone growth and to decrease fractures.

#### "G" And "H" Are For "Good Habits"

That means regular meals and sleep, no smoking and drinking less than one cola or alcohol serving a day. Cigarettes decrease estrogen's effects. Avoid sleeping or anxiety drugs that increase risk for falling.

# "I" For "Inhibit Bone Loss/Resorption"

Bone is renovated by "osteoclast" cells that remove old bone. Osteoclasts become more energetic with aging and fractures increase. Calcium and Vitamin D are always needed. Several drugs slow bone loss and prevent fractures (broken bone): risedronate, alendronate, estrogen, denosumab, zoledronic acid and raloxifene. Others also slow bone loss: etidronate, clodronate and tamoxifen. Progesterone partners with these drugs to increase bone density but added fracture prevention hasn't yet been studied.

All parts of this "osteoporosis alphabet" are important. Together they can both build stronger bone and prevent fractures!

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