WHAT YOU SHOULD KNOW ABOUT
Continuing Bisphosphonate Osteoporosis Medications

All bisphosphonates (alendronate, risedronate, ibandronate, and zoledronic acid) strengthen bone and reduce risk of fractures by slowing bone turnover. Beyond the first 5 years of use, however, benefits are much less clear. New reports of unusual fractures of the thigh bone after 3 or more years of bisphosphonate therapy have led to the recommendation that patients should discuss with their clinician whether it is appropriate to continue therapy beyond 3 years based on whether they are at high risk of fracture.

How can I tell if I’m at high risk of fracture?
Many women were advised to take a bisphosphonate (BP) for prevention of bone loss long before osteoporosis had developed. Experts now recommend BP therapy only if the risk of fracture in the near future is very high. One way to estimate your risk is by using a web-based fracture risk calculator (FRAX). You can do this yourself online:
- Search “FRAX”
- Select the University of Sheffield option
- Select “Calculation Tool” and follow the instructions

Your result should be valid even if you have not had a bone density test. You can enter your name and print the result to discuss with your provider. Osteoporosis medication is generally recommended when the FRAX calculator indicates that your fracture risk over the next 10 years is
- 3% or more for a hip fracture
- 20% or more for any 1 of 4 major osteoporotic fractures

Weighing fracture risks
The proven benefit of BP therapy comes in the first few years. The risk of fracturing can be reduced by 25% in the bones of the arms and in the hip and by about 50% in the spine. The real benefits are for those who have osteoporosis diagnosed by dual-energy x-ray absorptiometry (DXA) or who have a history of hip or spine fractures. In women who have normal or low bone density and who have not had these osteoporotic fractures, the benefit of taking BP therapy is unproven.

The major concern is that prolonged BP therapy can lead to a change in thigh bone strength, causing this otherwise very strong bone to break, even without an obvious injury. About 1 in 2,500 people who have taken a BP for 6 years will suffer this unusual adverse effect. Among those taking BP for 10 years, the risk may be as high as 1 in 500.

What are the early signs of the unusual thigh fracture?
About two-thirds of women have a warning ache or pain in the thigh or groin for several weeks before the bone breaks. If you have this type of pain, notify your provider immediately and stop activities that could stress your legs, even minimally. Your provider can arrange an x-ray or scan to check the thigh bone for early signs of a fracture.

Which fracture is of greater concern?
Begin by understanding your own osteoporosis fracture risk as calculated by FRAX with consideration of your personal health condition. Then consider how much a BP could reduce that risk. We don’t yet have a way to tell who will get the unusual thigh fracture while taking a BP, but the risk gets progressively higher beyond 3 years. By taking into account your individual factors, you and your provider can better judge whether you are more or less likely to have benefit (or harm) from continuing BP therapy. Listed below are some of the key factors to consider. Together with your provider, you can add other personal factors to complete your own list.
Factors that favor continuing BP

- Osteoporosis on recent DXA test
- 10-year risk for hip fracture 3% or more
- 10-year risk for 4 major fractures 20% or more
- History of spine, wrist, upper arm, or hip fracture
- Other:

Factors that favor stopping BP

- Normal bone density or low bone mass
- 10-year risk for hip fracture less than 3%
- 10-year risk for major fracture less than 20%
- No history of osteoporotic fractures
- Other:

Consider your choices regarding your BP medication

1) You can keep taking the BP just as before.
2) You can keep taking a BP but reduce the dose.
3) You can take a temporary drug “holiday” from BP therapy. This holiday could be for a few years. Compared with women who took BP for 10 years, those who took BP for 5 years and stopped for 5 years obtained the same osteoporotic fracture benefit.
4) You can stop using a BP completely.

If your osteoporosis fracture risk is concerning to you and your provider, consider options 1 or 2. If your risk is less worrisome, then consider options 3 or 4.