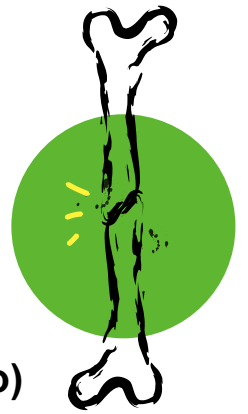


مستشفى الملك فيصل التخصصي ومركز الأبحاث
King Faisal Specialist Hospital & Research Centre
مؤسسة عامة Gen. Org.



For Better Health Series (15)

Osteoporosis: What Do You Need to Know? (Part Two)

Hussein Raef, MD
Consultant Endocrinologist

I explained previously the factors that lead to the occurrence of osteoporosis or fractures, and I called them risk factors. The presence of several of them in a postmenopausal woman or in a man with age of 50 years and above requires medical evaluation to deny the presence of osteoporosis. Osteoporosis is diagnosed in one of the following ways:

- 1- A fracture or atelectasis is detected in a vertebra without trauma or due to a minor trauma.
- 2- Severe decrease in the length or exaggerated curvature in the back.
- 3- The presence of multiple risk factors, and a simple mathematical tool has been developed that depends on the presence or absence of risk factors in addition to the ethnic factor. This calculation tool available online and is called FRAX. It gives a percentage of occurrence of a fraction for the next ten years based on these factors (in some countries this number is considered high if it is more than 20%).
- 4- Diagnosis is also made using DEXA rays. If it shows a severe decrease from the normal range for youth and it is expressed in a number that is usually less than -2.5.

International and national societies have set standards for “DEXA rays” exam in order to avoid misuse and unjustified medical expenses. DEXA rays should be used at the appropriate time and for the appropriate person such the following conditions”

1. Any man or woman aged 65 or more. If the examination is normal and there is no presence of fractures or risk factors, it can be repeated after a period of 5 – 10 years and according to the doctor's assessment.
2. If there is a practical evidence of osteoporosis, such as a fracture or a fracture with a slight trauma or a severe decrease in length.
3. If the age is between 50 – 65 with the presence of multiple risk factors as a family history of a fracture due to osteoporosis with history of smoking, or depending on the calculation of the FRAX if it is high.
4. If cortisone is given for a period of more than 3 months to a person aged more than 50.

In all these cases, the DEXA is useful to confirm the diagnosis, but not required if it is not available, as it is reliable to calculate the risk ratio FRAX to determine if treatment is necessary.

Osteoporosis treatment, what it is and who needs it?

When osteoporosis is confirmed using one of the previous methods, it is necessary for the doctor to investigate the reasons for its occurrence and the possibility of correcting these factors such as stopping smoking and alcohol consumption, legalizing and controlling the use of cortisone if possible and treating any accompanying deficiency in calcium or vitamin D, as well as encouraging exercises that help strengthening the muscles and maintaining balance. As for the use of medications, it should be under medical supervision and be determined by specific standards. Medications are rarely used before the age of fifty or before menopause.

Reasons for using medications are:

- 1- A fracture caused by fragility or atelectasis in one or more vertebrae.
- 2- Presence of osteoporosis measured by DEXA rays.
- 3- Presence of bone weakness (which is a middle case of osteoporosis but less than normal size measured by DEXA rays) with several risk factors.

In these cases, one of the medications that may be used is anabolic bone builder in the form of daily injections for 12 – 24 months followed by another type that is usually used in severe cases, or Antiresorptives which are the most common medications and can be in the form of pills (weekly or monthly), or in the form of intravenous (annually) or subcutaneously (every six months).

There are many details about the use of these medications that need follow-up with the treating doctor or specialist, as the duration of treatment may range from 3 – 10 years for some cases or for a longer period or a lifetime for others. Also, some of these medications have some side effects. Therefore, discussing the treatment plan, its duration and the frequency of follow-ups are essential to the success of the treatment.