



## **IHHS- HEALTH & WELLNESS CENTER**

**1607 SO. H STREET  
BAKERSFIELD, CA 93304  
(661) 837-0453 ~ FAX (661) 837-0560  
The Local People Serving You**

# **Osteoporosis**

## **Prevention and Treatment**

In postmenopausal patients progesterone is a vital link in a chain of multiple factors which, together, are necessary for good bone building. This chain includes proper diet, a few nutrient supplements, hormone use, exercise, and avoidance of cigarette smoking. One or another of the factors, if missing, will prevent the chain from doing its work.

## **Diet**

Chew your food well, and drink 8 glasses of water daily. Emphasize fresh vegetables, particularly broad leafy greens, legumes, nuts, and seeds. Restrict or avoid "soda" and limit red meat to 3 or fewer times per week. Choose whole grains over refined flour but limit intake of wheat. Limit alcohol use. Dairy products are not necessary. Cheese is OK. Rotate the variety of foods you eat, and wash your fruits and vegetables well. Avoid prepackaged foods. Decrease body weight if overweight.

## **Patients should supplement with:**

- Vitamin D 2000-10,000 I.U. daily, and other vitamins below
- Vitamin C 2 grams twice daily
- Vitamin E 400 I.U. - 800 I.U.daily
- Vitamin K2 and K1 90-180mcg a day
- Folic Acid (methylfolate or folic acid) 1mg daily
- Vitamin B-12 active form Methylcobalamin 1mg daily
- Betacarotene 15mg/day (or Vitamin A 25,000 IU/daily)
- Zinc 15 to 50 mg a day
- Calcium Microcrystalline Ca Hydroxy-Apatite 500-800mg/day + diet, and with other minerals;
- Magnesium 30mg to 800 mg/day
- Trace minerals, Phosphorus, Boron, Silicon, Strontium, Vanadium, Molybdenum, Selenomethionine
- Collagen

- Therapeutic Multiple Vitamins/Mineral/Trace minerals, not listed Take daily.
- Herbs; Gentian Root, Horsetail per individual requirements

### **Exercise**

It is recommended to perform weight bearing/lifting &/or resistance training, and vigorous exercise for 20 minutes daily or 30 minutes at least 3 days per week.

In a 2015 study<sup>43</sup> published in the Journal of Osteoporosis & Physical Activity, women diagnosed with osteopenia and osteoporosis (none of whom were on medication for it) who performed osteogenic loading-type resistance training saw a 14.9% increase in the density of the hip bone and a 16.6% increase in the density of the spine after 24 weeks.

Most load-bearing exercises fail to produce sufficient osteogenic load to trigger bone growth. Research suggests the load needed to trigger bone growth in the hip is 4.2 times your bodyweight. Blood flow restriction training is an alternative that not only appears to have a beneficial effect on bone health but is also viable for the elderly and those who can't lift heavy weights.

**Blood flow restriction (BFR) training** is a novel type of biohack that allows you to do strength exercises using just 20 - 30% of the max weight you'd normally be able to lift just once, while still reaping maximum benefits. It involves performing strength training exercises while restricting venous blood flow to your heart (but not arterial flow) on the extremity being worked. This is done by wrapping the extremity being worked with a cuff that mildly restricts blood flow. Talk to your physician or health care provider about using this technique. By forcing blood to remain inside your extremity while it is exercising with light weights, you stimulate metabolic changes in your muscle that result in great improvements in strength with virtually no risk of injury.

**Estrogen and Progesterone** supportive treatments may be utilized as well. Estrogen slows bone osteoclast resorption [breaking down the old bone for new growth] and progesterone increases osteoblast activity for more bone growth, in some cases over 20% in 1 year.

Please contact the IHHS Health & Wellness Center for more information.