



"Primum non nocere"



Number 14

SEASONS GREETINGS!



(L. to R.) Dr. Elvove, Dawn, Debbie, Cathy, Karen, Marge, Donna, Kristi, Janet

DEBBIE BOUCHER, R.N. JOINS STAFF

Debbie Boucher, RN-BSN, CD, AAHCC, joined our practice in February 2005 to work as one of our homebirth nurses and as an office nurse four days a week. She graduated from Loyola University this year with a bachelor's degree in nursing. Her new role as a nurse comes after several years of experience in the childbirth field. She has been a doula for 12 years and has been teaching Bradley Method® natural childbirth classes for eight years. She enjoys guiding women in their childbearing years with education and labor assistance. Debbie is currently a student nurse-midwife at University of Illinois at Chicago seeking a master's degree in nursing, on her way to become a certified nurse-midwife (CNM). She is married with two children and two stepchildren ranging in ages from 11 to 17. *



Debbie Boucher, R.N.

BONE HEALTH

Osteoporosis is a serious health threat; it's a progressive disease that starts around the age of thirty-five and accelerates at menopause. Osteoporosis causes a decrease in bone strength that can result in fractures of the hip, spine, or forearm, followed by a marked decline in the quality and quantity of life. Osteoporosis occurs as a result of bone loss exceeding new bone formation over a period of years. Half of women over 50 will suffer from a fracture caused by osteoporosis over their lifetime. That is why it is important to take early preventative steps now.

Bone, unlike teeth, is a living tissue, which undergoes constant remodeling by cells called *osteoclasts* and *osteoblasts*. Where the old bone has been resorbed by osteoclasts, the osteoblast cells deposit new bone minerals. The minerals are deposited into a collagen connective tissue, which holds the bony matrix together. The overall strength of the bone is determined by the quali-

ty of this bony matrix. The remodeling process assures that the bone maintains its integrity with respect to the forces to which it is subjected. The sex hormones estrogen, progesterone, and testosterone serve as the directors for bone remodeling.

A strategy to maintain strong healthy bones includes: (1) intake of adequate sources of calcium, magnesium, and trace minerals; (2) vitamin D to aid in the digestive absorption of the minerals; (3) weight-bearing exercises that consistently stress the bones, thus stimulating strong new bone formation; (4) an appropriate balance of the sex hormones circulating in the blood; and (5) a non-inflammatory diet to insure that the collagen matrix is healthy and strong.

The diet should be rich in fruits and vegetables, especially dark green broad-leafed vegetables like spinach, kale, etc. Adequate, but not excessive protein in the diet is important. A diet that is too high in carbohydrates or too low in protein can result in excessive cortisol and insulin secretion. In excess those hormones will undermine bone strength. Supplementing with fish oil will protect the bone matrix from weakening by excessive pro-inflammatory hormones. Vitamin D aids in the absorption of calcium from the intestines. Sunlight exposure on the skin creates vitamin D; however during the winter months a supplement of 1200 IU's of natural Vitamin D3 is advisable.

Exercise throughout life is important to provide stress to the bones. Walking, bicycling, and weight training are helpful to stimulate new bone formation. People that continue to work outdoors throughout their lives are not prone to developing osteoporosis. Weight training stimulates the synthesis of testosterone that women require in small quantities to maintain healthy bones, as well as to engender a feeling of strength and well being.

The sex hormones, estrogen and progesterone, play a role in establishing an appropriate balance between bone formation and bone resorption. Estrogen slows the resorption of old bone while progesterone stimulates the synthesis of new bone. Progesterone clearly holds the leading role in this process. This explains why women start losing bone mass at age 35 while they are still making plenty of estrogen. At this age there are more anovulatory cycles in which no progesterone is made. The cumulative effect of numerous anovulatory cycles is estrogen dominance, resulting in premenstrual moodiness, breast tenderness and cysts, headaches, water retention, carbohydrate cravings, ➔

etc. Women who have these premenstrual symptoms should supplement physiological amounts of natural bioidentical progesterone during the last two weeks of their menstrual cycles. A typical dosage would be 15 mg. of progesterone in a skin cream applied twice daily from day 12 through day 26 of the menstrual cycle.

Unfortunately, bone mineral density (BMD) tests such as the DEXA or DPA imaging techniques are not good predictors of future fracture risk. Other factors such as poor balance, reduced vision, and lack of muscle strength are as important indicators as BMD in predicting hip fractures. Exposure to drugs such as sleeping pills, anti-hypertensives, and cortisone can increase fracture risk. Furthermore, larger women with big bones will show higher BMD scores than petite women, because their larger bones have greater total mineral content. This higher BMD score does not necessarily translate into stronger bones. A better screening test would be annual accurate height measurements after age 30, because a progressive loss of height due to spinal bone deterioration would indicate osteoporosis.

I do not recommend taking the bisphosphonate drugs such as Fosamax, Actonel, or Didronel to improve bone density. These drugs inhibit the osteoclast-mediated resorption of bone, and therefore interfere with the remodeling process. The bones will look denser on the BMD scans, but over time, the quality of the bone will deteriorate. After five years on these drugs, the fracture risk actually increases due to the decreasing tensile strength of the unre modeled bone. In addition, Fosamax can damage the esophagus, stomach, and kidneys, and may cause diarrhea, flatulence, rash, headaches, and muscle pain.

Evista is a synthetic estrogen advertised for osteoporosis treatment. However it has potentially serious harmful side effects such as blood clots in the lungs or brain. Furthermore, it has not been proven to decrease the incidence of hip fractures.

In summary, osteoporosis has multiple causes and thus requires multiple interventions to prevent or to reverse. Diet, nutrients, exercise, and hormonal balance are all important. For a more detailed look at this subject I recommend, *What Your Doctor May Not Have Told You About Menopause* by John R. Lee, M.D., chapter 13. *

WHAT'S NEW IN THE ZONE?

For the past 10 years I have been recommending the Zone nutrition method developed by Barry Sears, Ph.D. This common sense approach to nutrition provides a strong foundation for establishing good health and for slowing the aging process. The foods recommended are healthy, natural, and unrefined foods that provide the best nutrients that the body needs for growth, function, and repair. More significantly, it is the anti-inflammatory effect of the diet that prevents chronic diseases. Recent medical research increasingly implicates silent inflammation as the precursor for diseases like atherosclerosis, arthritis, type 2 diabetes, Alzheimer's, multiple sclerosis, and cancer. The inflammation is termed "silent" because you do not notice symptoms until after many years, when the full-blown disease finally emerges.

The Zone diet reduces inflammation by regulating the balance of the hormones insulin, glucagon, and cortisol. These hormones have far reaching effects over the entire body's anatomy and physiology. Furthermore, the dietary supplementation of fish oil can act as a potent anti-inflammatory. The recent development of ultra-refined pharmaceutical grade fish oils allows for higher dosing of the long chain omega-3 fatty acids EPA and DHA. We can now treat or prevent inflammatory conditions without worrying about gastrointestinal upset or mercury or dioxin contamination.

There is a blood test available in several research laboratories called the "silent inflammation profile" (SIP) that can tell you whether your body is susceptible to the chronic inflammatory diseases. This profile measures the ratio of arachidonic acid (AA) (a pro-

inflammatory fatty acid) to eicosapentaenoic acid (EPA) (an anti-inflammatory fatty acid). If your AA/EPA ratio ranges between 1.5 and 3.0, you are protected from heart attacks, certain cancers, Alzheimer's disease, and multiple sclerosis. If your ratio is higher, you are more susceptible to these diseases. The SIP test has a much higher predictability than other currently used blood tests such as cholesterol ratios, fasting insulin levels, c-reactive protein, or homocystine levels. The reference numbers for the SIP come from studies done on the Japanese, who have the longest life span, the longest health span (longevity minus years of disability), the lowest rates of heart disease, and the lowest rates of depression in the world. They have an average SIP of 1.5. In comparison, the SIP of the average American is about 12. SIP levels above 15 are correlated with chronic disease and premature mortality.

One of the reasons that Americans have a high SIP is from the over consumption of omega-6 vegetable oils such as corn, safflower, and soybean oils. These oils have only become universally available during the past 80 years. Because they are inexpensive to produce, they are overused. Americans also over consume refined carbohydrates which are plentiful, tasty, have a long shelf life, and are also inexpensive to produce. As a result, it is important for you to eat healthy, take fish oil, and know your SIP level. Your SIP level can help to guide you to know how much fish oil you should be taking. For further information on this subject read *The Anti-Inflammation Zone* by Dr. Barry Sears. *

STUDY PROVES HOME BIRTH SAFETY

A study published in the prestigious British Medical Journal on June 18, 2005 reported on the outcomes of over 5,400 women in the US and Canada who elected to deliver at home with the assistance of certified midwives in 2000. The researchers found that their outcomes were similar to a matched group of low-risk women who chose to deliver in hospitals. The women who delivered at home benefited by substantially lower rates of Cesarean sections, epidurals, pitocin augmentations, and forceps or vacuum deliveries. The evidence from this study supports the American Public Health Association's recommendation that home deliveries with certified midwives should be increased in the United States.

This is the largest and most well designed study that I have ever seen regarding the outcomes of home births. It verifies what I have discovered in my own home birth practice over the years. Home births provided to a low risk obstetrical patients by a skilled and experienced health care team result in equal or better medical outcomes than a matched group of hospital births. If you would like to download and read the entire study, go to elvovemd.com/a/downloads.htm and click on "Home Birth Safety Study". *

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