

## **SPRING EDITION, 2004**

### **CALCIUM:**

Osteoporosis affects 20-25 million people over the age of 45 years. It results in about 1.5. million fractures per year. Osteoporosis can cause loss in health, pain in the back bone area, rounded shoulders, hunched back, bone fractures, and or tooth loss. Age and genetics are definitely factors, but hormones, diet, exercise, and calcium, intake also play an important role.

Calcium is absorbed in the duodenum and proximal jejunum. Vitamin D and ingestion of food or lactose improve absorption of calcium. Sugar, sugar alcohol, and protein may have the same positive effect. Fiber may decrease calcium absorption. Calcium can decrease iron absorption when taken together.

**Controllable Factors:** Estrogen, we know that menopausal women are at increased risk. Exercise-regular, weight bearing, and strength training help maintain bone density. Smoking-decreases circulating estrogen. Calcium supplements-the most crucial period of calcium intake is from birth until about 35 years old and is probably the single most controllable factor.

**Availability of Calcium:** 1000-2400mgm of “elemental” calcium daily is recommended by supplements. Labels can be confusing. Calcium Citrate is one of the best available forms. If your bottle of Calcium Citrate does not say how much “elemental” calcium included, call the manufacturer. It is not always included. Citrical has elemental amounts on their labels. Be sure to split up your doses throughout the day, 3-4 times/day. Preferably take Calcium and Iron at different times. Many Calcium supplements now contain vitamin D and magnesium as well for improved absorption. Calcium citrate decreases risk of kidney stones and is better absorbed than carbonate found in such supplements as Tum’s or Viactivs.

**Blood levels:** Remember that serum calcium does not reflect bone status. We recommend our patients have a bone density scan at age of 45. It is generally recommended for any female at age 50. Some bariatric practices are doing bone density scans on all pre-op patients. Intact parathyroid (PTH) will be elevated when you are not absorbing enough calcium. We see the elevated PTH’s come down, once patients are taking adequate Calcium citrate. We do not store this much needed vitamin and helps with calcium absorption. Alkaline Phosphotase if elevated can mean inadequate Calcium absorption as well.

### **Conclusion:**

Be your own best advocate and be “pro-active” regarding your health. Everyone reacts differently to weight loss surgery. You need to always have your annual labs done, faxed to our office, receive our evaluation and communicate with both your primary care physician and your surgical team, for life!

## **WINTER EDITION, 2004**

## **Sugar Substitutes:**

### **‘Sweet Nothing’ – Not all sweeteners are Equal**

Due to the obesity epidemic a growing number of people are trying to cut calories by using “diet” products. The low-carb craze has left food manufacturers scrambling to take the sugar out of everything from chocolate to ketchup. Not all sugar substitutes are Equal. The US Department of Agriculture has suggested a limit of 10 teaspoons of added sugar/day for those who consume a 2,000-calorie diet, or one 12-ounce soft drink, or two 6-ounces fruit –on-the-bottom yogurts. While we are all consuming WAY too much sugar, not all sugar substitutes are the same. Reading food labels will help. And we hope this article will help with the confusion on sugar substitutes as well.

**Sucralose:** Considered “Safe” Also known as Splenda. It is made from sugar, but this is misleading. Sugar is chemically combined with chlorine and our bodies can’t burn sucralose for energy. This is considered a Safe substitute at this time.

**Sugar Alcohols:** Considered “safe, but large amounts can cause diarrhea.” Also known as sorbitol, xylitol, mannitol, maltitol, lactitol, isomalt, erythritol, and hydrogenated starch hydrolysates. Sugar alcohols aren’t sugar and won’t make you tipsy. They’re made by adding hydrogen atoms to sugars. For example, adding hydrogen to glucose makes sorbitol. Some of these are better absorbed than others. Too much sugar alcohol traveling unabsorbed through the intestinal tract can cause bloating gas and diarrhea. As little as 10 grams of sorbitol can cause GI distress.

**Tagatose:** Considered “Safe, but large amounts can cause diarrhea.” Naturlose, is manufactured from lactose. Unlike sugar, tagatose can’t be digested by enzymes in the intestines. Most passes through the body unabsorbed. Consuming large amounts can cause flatulence, rumbling noises, bloating and nausea. This item is found in Diet Pepsi Slurpees.

**Aspartame:** Considered “Safe, but certain people should avoid.” Also known as Equal, NutraSweet, **Natra Taste.** A synthetic derivative of a combination of the amino acids aspartic acid and phenylalanine. It is low calorie because only tiny amounts of aspartame are needed to sweeten foods. There have been many studies done that suggest people may be sensitive to aspartame. Those with PKU should avoid this product. Headaches and increase risk of cancer have never been proven. More research is needed.

**Acesulfame:** Considered, “Inadequately tested”. Also known as Sweet One, Sunett, acesulfame potassium. It is a synthetic chemical. It is low-calorie because our bodies can’t metabolize it, this product needs more testing. It is commonly found in chewing gum.

**Stevia:** Considered, “Inadequately tested” Also known as Sweet leaf, Honey Leaf. It is an extraction from shrub that grows in South America. Our bodies can’t metabolize this product. Stevia is promoted by the health-food industry as a natural alternative to synthetic sweeteners.

**Saccharin:** Considered, “Unsafe” Also known as Sweet’N Low. It is a synthetic chemical that we cannot metabolize. Last year the National Cancer Institute noted in one of its studies----found that “some evidence of an increased risk of bladder cancer” in heavy saccharin users.

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## **SPRING EDITION, 2002**

NUTRITION “FOOD FIRMS PUSHING SUGAR PRODUCTS”  
LA Times, Business Section, 4/28/02...

“More sugar is being added to products alarming consumer groups that see the need for federal consumption guidelines. Food companies are pumping up the sugar in many of their new product – even diet food – in hopes of attracting new customers and boosting sales of tired brands. Frozen French fries are getting a chocolate and cinnamon sugar makeover. Skippy Creamy Peanut Butter (3 grams sugar) now comes with Nestle chocolate chips (8 grams sugar). Yoplait Light yogurt (14 grams sugar) now comes as Yoplait Whips (21 grams sugar). These can still be marketed as –“healthy”, because consumers coming off the low fat kick of the 1990’s have been trained to look only at fat and calories and care little about the rising sugar levels in food. The increasing use of sugar is becoming a major factor in obesity and therefore, adult-onset diabetes. The average consumer eats 152 pounds of sugar a year, 30 pounds more than two decade ago. Growing consumption of soft drinks is also another major contributor especially in children, **60% of the U.S. population is overweight or obese now.** The U. S.D.A. is up against a powerful industry, the sugar industry. While no one can say sugar is addictive, sugar attraction, may be more accurate with a clear link between sugar and the desire to get more. Food experts say sweet is selling better these days partly because consumers are feeling more time-strapped and stressed and want a sugary treat as a reward. As parents ate more pressed for time, kids are getting more convenience foods that often are more sugary than meals prepared home. Reading food labels is becoming more and more important for hidden sugars.”

.....We know our patients who have undergone the DS will absorb sugar easily. One 8 year post-op patient recently reported unhappiness with a weight gain of 25 pounds over the years. It was recommended she cut out all sugars for 2 weeks. After she stopped the sugar intake, she reported to us that she had lost 18 pounds in that short amount of time. Not only do our patients need to be aware of **sugar** intake, the general population does as well. And especially for the children of our patients, decreasing sugar intake while increasing activity levels will help fight obesity!

Vitamins – Study links vitamin A to women’s fractures.....

“A recent study published in the Journal of the American Medical Association found that women with the highest total intake of vitamin A, both from food and vitamin supplements had double the risk of hip fractures compared with women with the lowest intake. One theory is that too much Vitamin A inhibits the ability of vitamin D to help the body absorb calcium.” What this article is telling us in the field of bariatrics is that your **“annual labs and vitamins are critical for your health.** Taking unnecessary vitamin supplements may lead to high levels. A Michigan

bariatric practice was routinely recommending water soluble Vitamin A & D to their post-op patients. vitamin A toxicity was reported. We would recommend a vitamin supplement if your annual labs show a low level. Please everyone, be current on your labs!

- Annual labs....you will receive an evaluation from us when we receive these values....if you haven't received an evaluation, we haven't received your labs!
  - Vitamin A, D, E and K are fat soluble vitamins. If you are low in any these you need to find "water-soluble" Twin Labs and ADEK's are two of the brands pharmacist can order.
  - 1800-2400 mg Calcium Citrate throughout the day (not all at once)
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