

# ir Partners in Research



Issue #9, Spring 2000

Biannual Newsletter

THE CREIGHTON UNIVERSITY OSTEOPOROSIS RESEARCH CENTER

## Living with Osteoporosis: A Feature Profile

What better time than National Poetry Month to introduce you to a poet amongst us, Nina Duval Anderson. A reviewer of her poetry wrote that "...It is a pleasure to read a poet of craft, and mind, and one who possesses the wisdom to convey what can be puzzled or wondered over as truth with a more than nominal claim to experience." (Kenneth MacLean, Seattle University)

I first met Nina in 1993 when she entered one of our research studies. She was 90 years old and living alone at the time, although she acquired a Labrador puppy during the course of the three year study, her beloved dog Heathcliff. (Those of you who have raised a Labrador know the time, energy and strength involved!) She was working on her second book of poetry at the time. She is currently working on her third.

Nina comes by her strength, creativity and artistry naturally. Her forebears were one of the first Dutch French settlers in New York State. (Halsey St. near Wall Street is named after her maternal grandmother's family.) Nina's father also wrote and was one of the first ragtime musicians. Her mother was a horse tamer by trade. She was the prettiest girl in the county and Nina's father abandoned his plans to go to South America in order to win her hand. Nina and her family traveled all over, but their roots were in the Blue Ridge Mountains. (A cousin, the actor Robert Duval, was from the foothills, on the other side of the mountain.) They were living in Oregon when Nina was born. Her father had planned on meeting up with another young adventurer and writer of his age. But as it turns out, the young correspondent, Jack London, went further Northwest to Alaska, answering his own *call of the wild*.



Nina Duval Anderson.

Nina married and raised a family, writing secretly for the Benson newspaper. She did so as her husband would not have approved. In fact, Nina attributes much of her success to doing the opposite of what she was told. Before her husband died, he advised her to not invest, thinking she could not possibly do so wisely. She followed his instructions. That lasted about one week, then Nina decided to start learning about investing. If she had not, she would not have been able to support herself as she has.

Nina is an uncommon woman, but like a lot of other men and women her age, she is at risk for

fractures. Nina fell, slipping on ice Valentine's Day 1997, breaking her hip and wrist. Recovery was long, but steady. Nina is pain-free, living at home and does exercises under the guidance of a physical therapist. Her daughter Patty lives with her now, but Nina continues to be more active and productive than many half her age. Strength, kindness, wisdom and beauty emanate from her. It is people like Nina that make our work at the Osteoporosis Research Center possible, and make it a joy as well as a privilege.

*"Every word we write,  
a leaf to be shed  
from the glossary of our selves,  
until there is nothing left between us  
but honesty."*

NINA DUVAL ANDERSON



Portrait of Nina by her daughter, Ardelth

# Award Winners

**Dr. Joan Lappe** recipient of the Creighton School of Nursing Alumni Merit Award of 2000 is also the co-chairperson of the Nursing steering committee of the NOF - National Osteoporosis Foundation.

**Robert R. Recker**, our medical director, has been elected President of The American Society for Bone and Mineral Research. It is the leading international bone research association. Dr. Recker is also the chairperson of the NOF's Research Committee.

**Sharry Hinders**, project manager was nominated by several staff members for two Creighton University Founder's Day Awards

## Healthy Bones Club News!

When one of our pediatric nurses, **Gina Lypaczewski**, took on the role of project manager for a research study focusing on the bone health of pre-adolescent girls, she realized that educating young girls on building strong bones was very

important. As the Great Plains Girl Scout Council is also concerned with actively promoting healthy lifestyles, Gina began work on a patch that the Girl Scouts earn by demonstrating knowledge of bone health and nutrition. In January, the first step was reached. An official patch can be earned by girls in the Omaha and Bellevue troops. The program has been forwarded to Girl Scouts of America for authorization of a badge which would be available to troops in Canada, Puerto Rico and the United States.

**You go, girls!**



Patch was designed by  
Bob Lappe,  
Joan Lappe's husband.

# Nutritional Value and Safety of Milk

A new report by the American Council on Science and Health evaluates benefits of milk and dairy products and examines criticisms which have been raised

**BENEFITS:** The ACSH report affirms that milk and dairy products are a rich source of protein and calcium. The fortification of milk with vitamin D has been crucial in the near elimination of the dietary deficiency disease rickets in the United States. Vitamin D is very important in absorption of calcium and prevention of osteoporosis. Furthermore, low protein levels have been indicated as a major factor in delaying recovery from illness, injury and surgery. Milk has also played a role in the notable increase in overall height in this country, as well as general health. Furthermore, there is some evidence that diets rich in calcium help to reduce hypertension, PMS, colon

cancer, obesity and ulcers.

**CRITICISMS:** 1-Cholesterol and fat content: In an effort to limit calorie and fat intake, some needlessly rule out all dairy products.

There are many options for those wanting low cholesterol, low fat options. For those who describe themselves as lactose intolerant, many have good luck with hard cheeses, yogurt or lactose-reduced milk. Recent evidence shows that consuming small amounts of milk, especially with food, may help increase tolerance of lactose. Furthermore, lactose tolerance is a dominant gene which is actually increasing in the population allowing more people to enjoy dairy products freely and liberally.

2-Diabetes: Some preliminary research has suggested a possible link between Type I diabetes in individuals with a

## You are Key

The National Osteoporosis Foundation has established an ongoing grassroots campaign to build an advocacy network on legislative issues which affect osteoporosis. It is called the Key Contact Program. Key contacts are advocates who respond to legislative alerts issued by the NOF by contacting their state representatives, and contacting others to do so as well. If you are interested call NOF at 1-800-223-9994 or visit their web site [www.nof.org](http://www.nof.org)



## On the Road Again

In March the Osteoporosis Research Center is beginning a women's bone study in rural areas. We will be opening an office at the Fremont Area Medical Center and will be randomly selecting women in 9 surrounding counties. The purpose of the study is to determine whether calcium and vitamin D supplementation reduces bone loss and prevents fracture. The entry into the study is done differently for population studies, like this one. So don't call us, we may be calling you!



genetic predisposition and early exposure to cow's milk proteins. The American Academy of Pediatrics recommends breastfeeding and avoiding cow's milk in the first year of life.

- \* It is possible to get the nutrients you need if you are vegetarian or strict vegan, but it is complicated and very difficult for most.
- \* Cow's milk is not recommended for infants under one year of age and those with a true milk allergy; which is rare, and is not the same as lactose intolerance.
- \* For more information on the report visit former surgeon general Dr. C. Koop's web site [www.drkoop.com/news/focus/november/milk.html](http://www.drkoop.com/news/focus/november/milk.html)

# Bone Appétit

Award Winners-in honor of our award winning staff, web site and research participants, we are pleased to offer you 3 award-winning recipes from the girls in our exercise and calcium studies! (The Healthy Bones Club)

## Dump Cake

By Brandi



1 21oz. can pie filling (your Choice)\*

1 box cake mix, white

1/2 cup water

1 stick butter (oleo) sliced

2 oz package chopped pecans

Preheat oven to 350 degrees, use a 9 x 11 pan (no need to grease and flour)

1. Dump in your pie filling.
2. Sprinkle the dry Pillsbury cake over the pie filling.
3. Sprinkle water over cake mix.
4. Lay butter slices across top.
5. Top with pecans

Bake at 350 degrees for one hour.

Serve with your favorite flavor of ice cream! Enjoy!

## Fruit Pizza

By Nicole



Sugar Cookie dough

Cream Cheese Frosting

Top with your choice of fruit\*

Preheat oven to 350 degrees. Press cookie dough out on cookie sheet. Bake sugar cookie at 350 degrees until the edges are light golden brown (about 10 minutes).

Let sugar cookie crust cool in the refrigerator for 15 minutes.

While cookie is baking and cooling; cut and slice your favorite fruit toppings for the top of the pizza.

After the sugar cookie has cooled, spread the frosting evenly over the top of the cookie.

Top or decorate with your favorite sliced fruit.

\* Nicole used blueberries and strawberries and white frosting to make an American flag.

## Rebecca's Veggie Christmas Tree

1 pkg. Salad Dressing Mix (1.0 oz. size)

8 oz. sour cream

8 oz. cream cheese

2 rolls crescent Rolls

1 red pepper

1 yellow pepper

1 sm. bag baby carrots

1 head broccoli

Preheat oven to 375 degrees.

Open crescent rolls. Separate each tube of dough into 4 rectangles (rather than 8 triangles). Roll each rectangle end to end into a log. Cut each log into 1/2 inch slices.

Spray cookie sheet with cooking spray.

Place crescent roll slices onto cookie sheet, almost touching, in the shape of a triangle (to form the Christmas Tree) and a rectangle at the base of the triangle (to

form the tree's stump)

Bake for 11-13 minutes.

Make topping by mixing ranch dip, sour cream, and cream cheese in a mixing bowl. Mix until smooth.

Chop broccoli. Cut carrots into rings.

Cut peppers into several horizontal rings.

Cut a yellow star from the yellow pepper.

Allow crescent roll slices to cool. (about 20 - 30 minutes)

Spread topping on top of crescent roll slices. (Not too thick! You won't use it all)

Sprinkle chopped broccoli on topping.

Place halved pepper rings on tree to form garland. Place carrot slices on tree to form ornaments. Place yellow pepper star on top of tree. Enjoy.



## MOO NEWS



If you receive any on-line news you may have seen 4 blurbs which pertain to bone health in the RealAge Tips of the Day:

### Banana Bones



Researchers at Tufts University conducted a four-year study and found that greater potassium intake was associated with the highest bone mineral density. It is thought that potassium plays a role in inhibiting the loss of calcium from bones. Foods high in potassium include fruits and green leafy vegetables.

**Our response:** Couldn't hurt!

### Calcium Conundrum?

In a recent study from the University of Texas Southwestern Medical Center, researchers found that calcium citrate had an absorption rate 2 times faster than calcium carbonate.

**Our response:** Both an analysis of our data and theirs conclude that for all practical purposes the two forms of calcium are essentially equal, with no clear advantage of one over the other. The choice is yours!



**Strike Stroke** A Mayo Clinic Health Letter recently reported that getting enough calcium may reduce stroke risk in women.

**Our response:** They are in good company. In the clinical trial, Dietary Approaches to Stop Hypertension (DASH), results show that a diet rich in fruits, vegetables and low-fat dairy foods with reduced saturated and total fat can substantially lower blood pressure.

**Yogurt to the Rescue** Researchers at Cornell Medical Center have found that a live active culture in yogurt replenishes the normal intestinal population killed by antibiotics, thus restoring a healthy balance, and treating antibiotic-induced diarrhea and cramping.

**Our response:** Just another good reason to eat yogurt!

Be sure to check out any health 'e' news with your healthcare provider.

# Bone Updates: THE RESULTS ARE IN!!!

## Reduces Fractures

Results of a study published in October 99 Journal of the American Medical Association report that residronate (Actonel) produced a reduction in vertebral fractures within 1 year of treatment and a significantly lower incidence of nonvertebral fractures within 3 years of treatment. Actonel is expected to be approved by the FDA this spring for the treatment of osteoporosis. Of course it is already approved for the treatment of another bone disease, Paget's, and so is available by prescription.

## Reduced Breast Cancer

A study published in the same issue of the JAMA reported that in postmenopausal women with osteoporosis, raloxifene treatment reduced the incidence of breast cancer for the three years of treatment studied. It offers no advantage over tamoxifene in terms of risk for blood clots and hot flashes. It has, however, been recently approved for treatment of osteoporosis in addition to prevention.

*Although the results are preliminary, they are impressive. Additional studies with long-term follow-up are needed to answer many questions.*

# Bioavailability Capital of the World

Many of you have participated in our studies to test the bioavailability of calcium in different foods. What you may not know is that we are one of the few places in the world who do such testing. Some of the products you see in the store were tested here: Viactiv, Kellogg's Nutrigrain bar, General Mills Total cereal and soy milk to name a few. You won't see a marker on I-80, but just know that you have helped contribute substantially to the scientific body of knowledge and made a very practical and tangible nutritional difference to countless lives.



## HOW WE MEASURE UP

Thank you for taking the time to send us your comments. We take into consideration all of your suggestions and try to incorporate them to help us serve you better!

"I can't think of one thing you could do to improve the care you provide. In this day and age, it's unbelievable to find everyone so helpful."

"I received some very helpful advice."

"Everyone I talked to seemed exceptionally interested in my situation."

"Thank you for your thoughtfulness and caring response."

**On one occasion, clinic ran very behind due to unusual circumstances. We apologize to all who had to wait. Our goal is to serve you to our utmost ability with the least amount of wait. Simply put, sometimes these two goals oppose each other. In order to serve each patient fully, on occasion, some have to wait. We apologize for any inconvenience. We know it is not always easy or possible to wait, especially if you have osteoporosis. Please feel free to ask to speak to the nurse at anytime regarding any concerns.**

## SOCIAL COLUMN

**Welcome** to our new drivers, Ron and Bud; new nurse project manager, Joy; and new lab technician, Sheila.



### It's a baby boom at the ORC!

Congratulations to our Radiology Tech supervisor Jenny on the birth of her second son, Lab supervisor Amy on the birth of her first baby, and to Histomorphometry Lab director Toni on the impending birth of her second child! (Radiology Tech, Colleen is also expecting a child around Labor Day!)

**Osteoporosis support group** continues to meet every second Tuesday of the month at 2 p.m. at the Osteoporosis Research Center. Our next meeting is on April 11, featuring Dr. Thomas P. Guck, Ph.D. Dr. Guck is Associate Professor and director of Behavioral Sciences with the Department of Family Practice. The focus of the presentation and discussion will be living with chronic illness and use of effective coping mechanisms.

If interested, call Virginia at 393-8996 or Dorothy at 493-2493. E-mail address is [fhn1@juno.com](mailto:fhn1@juno.com).



**Debbie Reynolds** has joined the campaign to urge older women to get a bone-mineral density test to diagnose osteoporosis. The 67 year-old actress was diagnosed this year with the bone-thinning disease that caused her grandmother to become stooped and weakened. With prevention, early detection and treatment much of the impact of osteoporosis can be lessened.

## SOME FREQUENTLY ASKED QUESTIONS

# Ask the Wizard of OS-teoporosis

### Q. How much calcium do I need?

**A.** Adults from age 25 to 50 need about 1000-1200 mg of calcium/day for bone health. (They may need more for optimal protection from colon cancer, for blood pressure regulation, and for reduction of premenstrual syndrome symptoms.) After age 50 the skeletal need rises, and literally gets greater the longer we live. Best current estimates point to a figure close to 1400-1500 mg/day in older adults.

### Q. Why does the calcium requirement rise with age?

**A.** Older adults absorb calcium less efficiently from the diet and retain it less efficiently at the kidney. For these reasons older adults need to take in more calcium every day just to keep from losing calcium. When that happens their bodies tear down bone (which is the body's calcium reserve) to scavenge its calcium.

### Q. What are the best sources of calcium?

**A.** The best sources of calcium are foods, followed by fortified foods, then supplements, in that order. Bone health needs total nutrition, not just calcium. Calcium-rich foods provide many other nutrients besides calcium. Several studies suggest that food calcium sources work better than calcium supplements, not because food calcium is absorbed better, but because of the other nutrients the foods contain. Calcium-rich foods include dairy products, greens of the Brassica genus (kale, collards, bok choy, broccoli, and many others), shell fish and crustaceans, calcium-set tofu, and a few nuts. Supplements should be what their name indicates, "supplemental", to an otherwise good diet not a substitute for good nutrition.

### What calcium supplement is best?

**A.** There is very little difference in absorbability of different calcium supplement preparations. For most people,

calcium carbonate (such as is found in Tums, Os-Cal, and Caltrate, among other brands) is well tolerated and relatively inexpensive. But calcium citrate malate and glycine calcium chelate are better absorbed than either the citrate or carbonate salts. Generally, however, a person can get the extra calcium more economically by simply taking an occasional extra dose of the less expensive salts. The good thing about the American system is that we have choices. Use the supplement that seems to agree best with you. For the most part, your bones cannot tell the difference between them.

### Q. When should I take my calcium supplement?

**A.** Calcium supplements are best taken in divided doses with food. That way absorption of the calcium in the supplement is optimized. In other words, you get maximal benefit out of your day's calcium ration. Often physicians will recommend a bedtime dose because bone breakdown increases at night and bedtime supplements slow that breakdown. But there is no solid evidence to show, over the long run, that bedtime dosing works any better than any other schedule. For some individuals, taking many calcium supplements on an empty stomach results in poor absorption. For those individuals, a bedtime dose, if not accompanied by a food snack, would not be very helpful.

### Q. How common are the gastrointestinal side effects of calcium supplements?

**A.** In recommended doses (i.e., up to 1500 mg Ca/d), side effects are very unusual. In double-blind, placebo-controlled studies, constipation is usually reported in only about 10% of patients, and often is as common in the group receiving a placebo. However, if an individual appears to have GI problems with a specific supplement, the best approach is simply to switch to another product. Also, taking supplements in divided doses with food often eliminates any problem.

### Q. Don't a lot of things, like tobacco, alcohol, colas, caffeine, or animal protein, interfere with calcium absorption? How can I be sure I'm really getting the benefit of the calcium in my food (or supplement)?

**A.** So far as is now known, there is no interference with calcium absorption by tobacco, alcohol in moderation, cola consumption, or eating animal protein. In fact, there is a good bit of negative evidence that these things do not interfere with calcium utilization from food. Caffeine does interfere very slightly but the effect is so small that it is easily offset by a few tablespoons of milk. In fact, a cafe latte actually confers a substantial calcium benefit, despite its caffeine content.

### Q. How much vitamin D do we need?

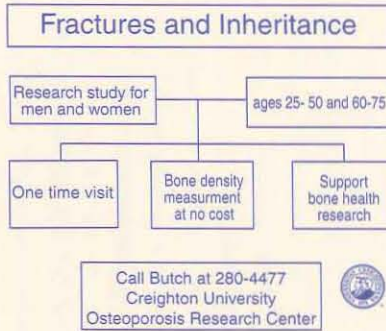
**A.** Vitamin D research has become much more active in recent years as nutritional scientists have realized that the simple absence of rickets and osteomalacia was not the same thing as vitamin D adequacy. The daily requirement, once thought to be only 200 IU for adults, is now known to be much higher and the newest recommendations from the National Academy of Sciences suggest 600 IU/day for older adults. Vitamin D is normally made in our skin on exposure to sunlight, but sunscreens and indoor work or living prevent most of us from getting the vitamin D we need from that source. Also, the skin of older persons is less efficient at making vitamin D. A recent study of patients admitted to a Boston hospital showed that more than half had subnormal blood levels of vitamin D on admission. To ensure that we get enough vitamin D most of us must depend upon supplements or milk (which is fortified with vitamin D).

## OPPORTUNITIES TO PARTICIPATE

The Creighton University Osteoporosis Research Center is conducting the following new and exciting studies. If you or someone you know is eligible and interested, we would love to hear from you! Our Toll-Free # is 1-800-368-5097.

### EFFECT OF SURGERY ON BONE

- Healthy men or women, scheduled for surgery
- 50 years of age or older
- Willing to come in prior to surgery and then 4 times in the year following the surgery
- Free Bone Densitometry (Osteoporosis Screening)
- Home Nurse visits at no cost
- contact Rachel at 280-4178  
Call Butch at 280-4474



### WOMEN'S STUDY

- Women age 60 and over
- free bone density measurements
- medication and transportation provided at no cost  
(*women on estrogen and Fosamax not eligible*)
- Call our research associates at 280-4250

### SMOKING STUDY

- Men and Women
- smokers and non-smokers
- 2 consecutive A.M.'s needed
- stipend offered
- Contact Jan at 280-4578

*Thank You for Your Continued  
Support and Interest!*

This newsletter and the Osteoporosis Support Group have been funded in part, by a generous grant from the Solvay Pharmaceutical Company.



Osteoporosis Research Center  
601 North 30th Street, Suite 4820  
Omaha, Nebraska 68131

Address Service Requested

Non-Profit Org.  
U.S. Postage  
**PAID**  
Permit No. 227  
Omaha, NE