University of Idaho, Twin Falls County, 246 3rd Ave. East, Twin Falls, ID 83301 208-734-9590 Fax 208-733-9645

Got Calcium!

The Situation

According to the National Osteoporosis Foundation, approximately 28 million Americans have osteoporosis but only 14% receive treatment. Half of all U.S. women and 1 in 8 men will have an osteoporosis-related fracture at some point in their lives. Also, with the "graying of America," it is estimated that the prevalence of osteoporosis could rise to 41 million by the year 2015. Prevention begins by consuming a life-long diet rich in calcium and vitamin D. The recommended calcium intake is 1000-1500 mg and the recommended vitamin D intake is 200-400 IU. However, current intake is 500 mg calcium and 100 IU vitamin D. Treatment includes dietary and lifestyle changes, and taking certain medications.

Our Response

A total of 8 nutrition education classes on osteoporosis and calcium intake were developed using PowerPoint by Martha Raidl and Rhea Lanting and were pilot tested on various age groups. Instructors could utilize the materials either as overheads or from the computer. Extension Educators in all four districts were trained, and the classes could be conducted either in a group or one-on-one. The classes covered osteoporosis, increasing calcium intake, hunt for calcium in the supermarket, and recipe/menu development. Overheads, hands-on activities, videos, handouts, bone models, and food labels were used in the classes.

The osteoporosis class discussed risk factors and how osteoporosis develops. This was graphically shown using the "death of a bone" model, and a display of chicken bones stored in vinegar versus water simulated calcium loss in the bones.

The calcium class discussed how the recommended calcium intake could be met using all the food groups in the food guide pyramid. Participants calculated their current calcium intake and listed suggestions on how to increase their calcium intake. Bags of flour were used to demonstrate how calcium content in the body decreases over the life span.

The hunt for calcium in the supermarket class had participants calculate calcium content of three meals and two snacks, using items found on supermarket shelves. This activity showed them how many foods were enriched with calcium and how to interpret the %DV shown on the food label.

The recipe and menu development class first had participants modify recipes and menus to make them high in calcium. They then prepared some of these high calcium recipes. The adults had one cooking class and the children had two cooking classes.

Two Extension Educators, Rhea Lanting and Barbara Petty, tested the classes during the fall of 1999. Rhea tested the classes developed for children in Twin Falls, and Barbara tested the classes for adults in Bonneville County at a Senior Citizens Center.

Achievements

Senior Citizens

?? When Barbara Petty, Extension Educator in Bonneville County, advertised the classes, approximately **20** individuals were signed up. At the first class, **54** individuals showed up.
?? According to the Activities Director at the Senior Center, the osteoporosis classes drew the *largest* attendance of any event held in their facility.
?? The class conducted at the Senior Center was scheduled to last one hour, but after 1½ hours, participants were still asking questions.
?? Participants were able to modify recipes to make them higher in calcium.
?? Participants learned what foods in the supermarket were high in calcium.

School-age Children

?? Children were able to identify foods high in calcium.
?? Children learned how to feed, use and protect their skeletons.
?? 16 out of 18 children rated the class as "super."

Evaluation comments from instructors:

?? The materials developed were very user friendly.
?? The variety of teaching methods makes this a very good program.
?? Hands-on activities provided a fun education experience for children.

Evaluation comments from senior citizen participants:

?? We need more seminars like this one today.
?? I will start drinking calcium fortified orange juice.
?? I will work on getting more calcium in my diet by reading the labels, and drinking more calcium.

Evaluation comments from children:

?? Calcium prevents holes in your bones.
?? Calcium is found in your bones and teeth.
?? Your bones can break if you don't eat calcium.

The Future

The rest of the Extension Educators will be testing these classes during the spring of 2000. Once the data is collected and analyzed, changes will be made to the materials. These materials will then be evaluated by other Extension Nutrition Specialists in other states and, hopefully, be marketed by the University of Idaho.

Cooperators and Co-Sponsors

University of Idaho Cooperative Extension System
Idaho Dairy Council

For More Information

Martha Raidl, PhD, RD
Extension Nutrition Education Specialist
UI- Boise Center
800 Park Blvd., Suite 200
Boise, ID 83712
Phone: 208-364-4056
Fax: 208-364-4035
Email: mraidl@uidaho.edu

Rhea Lanting, Extension Educator
University of Idaho
Twin Falls County Cooperative Extension System
246 3rd Avenue East
Twin Falls, ID 83301-6251
Phone: 208-734-9590
Fax: 208-733-9645
Email: rhlantin@uidaho.edu

Barbara Petty, Extension Educator
University of Idaho
Bonneville County Cooperative Extension System
2925 Rollandet
Idaho Falls, ID 83402-4654
Phone: 208-529-1390
Fax: 208-529-1391
Email: bpetty@uidaho.edu

C:\My Documents\IMPACT\Impacts-1999\GotCalcium.doc 1999