ASBMR 2012 Annual Meeting

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New Research Explores Link between Severe Anorexia Nervosa and Bone Strength and Correlation between Bone Mass in Childhood and Adulthood

Minneapolis, MN – Two studies released today add to the growing body of research on bone mass in childhood and adolescence, which are linked to bone diseases like osteoporosis later in life. Bone mass is at its peak around age 30 and then typically starts to decline. The research was released at the American Society for Bone and Mineral Research (ASBMR) 2012 Annual Meeting, the largest scientific meeting in the world on bone and mineral metabolism. The findings include:

Low Bone Mass in Children Can Predict Adult Bone Health
Three in four girls and more than half of boys who had low bone density or "osteopenia" in childhood still had the condition as adults, according to a new 28-year study by Swedish researchers. About 200 million people worldwide are estimated to have low bone mass, making them more susceptible to osteoporosis. Scientists tracked more than 200 children with low bone mineral content ages 3-17, through young adulthood at ages 26-29, and again at ages 28-44 and concluded that bone mass in childhood can be one indicator of bone health in adulthood, particularly for girls.

Low Bone Density, Fractures Common among Girls Hospitalized for Anorexia Nervosa
About one in four girls hospitalized for severe anorexia nervosa had experienced a bone fracture and half had low bone density, according to a study by researchers at Paris Descartes University. Science has already established that low bone density is a consequence of anorexia, but little research exists concerning young patients with the severe form of the disease (average length of the disease is four years). The researchers assessed 150 women with an average age of 20 who were admitted to 11 inpatient treatment centers, providing some of the first significant data showing the connection between an extremely low body mass index and bone health.

The studies follow three other studies related to childhood bone development that were released at the ASBMR meeting on October 13:

- ***Games, Exercises in Early Childhood School PE Programs Can be Designed to Boost Bones***
- ***Early Childhood Physical Activity Boosts Bone Health in Children – Particularly Boys***

- ***Links between Exercise, Calcium, Puberty and Bone Development***

QUICK FACTS ABOUT BONE HEALTH AND OSTEOPORISIS

- Bone mass is at its peak around age 30 and then typically starts to decline.

- According to the Institute of Medicine, adults 19 years of age and older require about 600-800 International Units of vitamin D daily and 1000-1200 mg. of calcium daily through food and with supplements, if needed, with somewhat different amounts of these nutrients recommended for growing children (ranges depending on age and gender).

- Experts recommend bone density testing for women who have experienced any bone fracture at age 45 or older and at age 50 for women with a family history of hip fractures or other bone-related disease.

- All women over age 65 should receive a baseline bone density screening test, however these are under-utilized; Medicare covers bone density testing as a preventive benefit, yet only 13 percent of Medicare-eligible women receive this screening test.

- Osteoporosis is a devastating and costly disease affecting 10 million Americans; another 34 million have low bone mass, making them more susceptible to osteoporosis.

- Without intervention, one in two women and one in four men age 50 and above will experience a fracture due to osteoporosis. Many individuals – men and women – don't even know they are at risk for the disease.

- In 2005, osteoporosis was responsible for an estimated two million fractures and $19 billion in costs.

- By 2025, experts predict that osteoporosis will be responsible for approximately three million fractures and $25.3 billion in costs each year.

For more information, please go to http://www.asbmr.org and see "Media" under the ASBMR 2012 Annual Meeting or contact Amy Goetz, ASBMR Marketing & Communications, agoetz@asbmr.org. NOTE: ASBMR will update its online press room throughout the meeting with new releases, meeting highlights and images. For access, contact agoetz@asbmr.org.

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The American Society for Bone and Mineral Research (ASBMR) is the leading professional, scientific and medical society established to bring together clinical and experimental scientists involved in the study of bone and mineral metabolism. ASBMR encourages and promotes the study of this expanding field through annual scientific meetings, an official journal (*Journal of Bone and Mineral Research*), the Primer on Metabolic Bone Diseases and Disorders of Mineral Metabolism, advocacy and interaction with government agencies and related societies. To learn more about upcoming meetings and publications, please visit www.asbmr.org.