Vitamin D supplementation should be started early to prevent osteoporosis

This is silent disease as it does not have any symptoms

New Delhi, 26 September 2017: From a research conducted recently, scientists have been able to identify what leads to bone loss in older adults. According to this, a protein called Cbf-beta plays a critical role in maintaining the bone-producing cells. When the mechanism producing this protein malfunctions, the progenitor cells stop creating bone-producing cells and instead create fat cells. It is, therefore, important to maintain this Cbf-beta to prevent human age-associated osteoporosis, which is caused due to excessive creation of fat cells.

Osteoporosis is condition in which the bones become weak, and even a simple fall or bump can cause a bone to break. The most common bones to break or fracture are those of the spine, hip and the wrist. This is often known as a “silent disease” because one cannot feel or see the bones becoming weaker. Women are more affected by this condition than men.

Speaking about this, Padma Shri Awardee Dr K K Aggarwal, National President Indian Medical Association (IMA) and President Heart Care Foundation of India (HCFI) and Dr RN Tandon – Honorary Secretary General IMA in a joint statement, said, “The normal bone-remodeling cycle is a balance of two special cells that work together to keep the bones strong. While osteoclast cells break down old bones causing pits; osteoblasts work to fill in these pits with new bone. When a person grows older, the bone-remodeling cycle changes and more bone is broken down than that formed. Osteoclasts start breaking down the bone faster. The osteoblasts cannot keep up with this to fill in the pits that are being formed. The bones thus become thin and fragile, leading to an increased risk of fractures. Apart from this, a low BMI is a risk factor for osteoporosis and high BMI is a risk factor for osteoarthritis. Therefore, a balance must be maintained.”

Apart from age and gender certain other factors such as an inactive lifestyle, excessive alcohol and tobacco intake, and smoking can also lead to osteoporosis. It is important to get a bone density test done in those above the age of 50 to assess the risk of acquiring this disorder.

Adding further, Dr Aggarwal, said, “If a female is postmenopausal, she needs an osteoporosis evaluation. In premenopausal women, in presence of risk factors, osteoporosis evaluation should be done; more the risk factors, more the chances of developing osteoporosis in future. To overcome osteoporosis, one must remember the following mnemonic, ABCDE: A means adequate sunlight, B means avoiding bone toxins, C means adequate calcium, D means fortification or supplementation of Vitamin D and E means exercise.”

The upcoming Perfect Health Mela being organized by HCFI, to be held from 4th to 8th October 2017 at the Talkatora Stadium in New Delhi will provide a platform to discuss many of these health issues. IMA is the knowledge partner for the event. It is a must visit for those interested in learning
more about preventive health and well-being. The Mela will also have free health camps for checking various health parameters.

The following tips can help prevent the risk of osteoporosis at an early age.

- Avoid bone toxins, namely, alcohol and smoking. Smoking is dangerous as it accelerates bone destruction. Excess of 80 ml of alcohol or 80 gm of alcohol can accelerate bone destruction.
- Start Vitamin D supplementation right from when boys and girls are in the school going age. Remember, osteoporosis begins in the school going age but manifests later in life.
- Three yoga exercises namely, Surya Namaskar, Tadasana and Vrakshasana, which involve standing on your toes or weight bearing on your toes, are good to avoid osteoporosis.
- An adequate intake of protein in diet, combined with an adequate intake of calcium helps increase bone density. One should aim for about 12% of calories to come from proteins such as legumes, poultry, seafood, meat, dairy products, nuts and seeds.

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