

# cancer NEWSLINE

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>> Welcome to Cancer Newsline. Your source for news on cancer research, diagnosis, treatment, and prevention. I'm your host Lisa Garvin. Our guest today is Dr. Mimi Hu. She is an associate professor of endocrine neoplasia and hormonal disorders here at MD Anderson. And our subject today is bone health as it relates to cancer. So, Dr. Hu, how does cancer or cancer treatment affect bone health?

>> Cancer itself can lead to remodeling of bone. Where, occasionally, if cancer is involving the bone, it can lead to weakening of the bone and lead to fractures. Some of our treatments, such as radiation therapy, will treat the underlying tumor. But the bone is in the way, and the bone can be affected. Additionally, there are therapies that can lead to cessation of menstrual cycles. And in women one of the biggest risk factors for bone loss is the lack of estrogen. And once menstrual cycles stop, that happens, and there's a significant amount of decline in the bone density. Additionally, men with prostate cancer, for example. They require treatments that will lower their testosterone levels. And lower testosterone levels will also lead to weakening of the bone density. So not only is the direct effect from the cancer, plays a role in bone health, it's the treatments that we give our patients. And, thus, bone health is a very important end organ that we need to think about and protect.

>> So this is something that we're proactive about at MD Anderson. When we get patients, we say, hey look, this is why follow-up is so important after treatment ends.

>> Absolutely. With our patients the oncologists are already thinking about this. If they are going to be treating patients with any medication that could lead to lowered estrogen levels. Or lower testosterone levels. Or even steroids that can weaken bones. They're thinking about it and ordering bone densities on their patients. And if the bone density shows that there's some loss of bone density or already with clear osteoporosis, they will refer their patients on to our bone health program for us to make recommendations and manage.

>> Now, as far as people who show up with preexisting osteopenia or osteoporosis. Considering the demographics of cancer patients, is this pretty common for people to have preexisting bone issues?

>> Yes, it is actually. Many patients are diagnosed a little later in life. And, thus, they may have already had low bone mass or osteopenia or osteoporosis. And so that all comes into play into consideration for their treatment for their underlying cancer.

>> What can patients do to maintain bone health? I mean, we hear about doing the calcium. But what are foods or activities or weight bearing exercises can people do?

>> That's a great question. Because many of our patients feel that, if they have a role in their own medical health, it really is very helpful to them if they can do something about their overall health. So in terms of supporting good bone health, we recommend getting an adequate amount of calcium in their

diet. Between 1,000 to 1,200 milligrams of calcium a day from all sources. The best sources are our food, such as dairy products. Green leafy vegetables. And any kind of calcium-fortified foods. But also with, what's important is to get vitamin D as well as resistance-based exercises. And so resistance-based exercises are things that we tend not to want to do. This is when we are working out against some resistance. Where our muscles are straining against a little bit of resistance. So even walking up and down some flight of stairs, that's resistance-based. Or you could challenge yourself by walking with some hand weights or some ankle weights. Obviously, if you can get to a gym or work out with a trainer and do some light weights that would be fantastic. I always tell my patients I'm not trying to get you into some kind of muscle building show, such as Arnold Schwarzenegger. But I do want them to dedicate about 20 minutes at least three to four times a week where they are focusing on core muscle-strengthening exercises.

>> So MD Anderson has a bone health program. What exactly does that accomplish?

>> The bone health program was started up a few years ago. It is a multidisciplinary program made up of endocrinologists. Rheumatologists. And geriatricians who have a special focus on bone health in our cancer patients. And so, when a patient has an underlying bone density issue or abnormal calcium balance issue, then their primary oncologist can refer them to our program. The patient will be seen by one of the members in our program. And based upon clinical assessment and laboratory testing and possibly some imaging studies, then we can come to some kind of comprehensive plan for the patient. Now, our bone health program does have a monthly multidisciplinary bone clinical case conference. Where we discuss certain elements regarding some of our patients. If it's seeing somewhat unusual bone elements, and then we can get a consensus opinion from our multidisciplinary group. So when patients are seen in our bone health program at MD Anderson, they're really getting a comprehensive, multi-faceted approach towards their bone health.

>> Great. Dr. Hu, thank you so much for being with us.

>> Thank you so much, Lisa.

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