Pharmacy professor researching whether herbal tea can slow bone loss

The clinical trial, called "OsTea," will study the effects of three herbal teas on bone health in men and women with osteopenia, a condition characterized by weak or thinning bones. Trial participants will be asked to drink tea three times a day for three months.

More than 200 million women worldwide have osteoporosis, a bone disease that occurs when the body loses too much bone. It's especially prevalent in perimenopausal and postmenopausal women, as hormonal changes cause an imbalance that leads to low bone density and related fractures. Osteopenia is marked by decreased bone density, but not to the point of osteoporosis.

"We know that teas have been helpful in decreasing the incidence of cancer and cardiovascular disease," said Dr. Paula Witt-Enderby, professor of pharmacology who is leading the study. "There has also been recent evidence demonstrating the positive effects of certain teas on bone health in rodent and cell culture models. Through this study, we will be researching how herbal teas may affect both men and women with decreasing bone density."

Witt-Enderby's research has continually focused on alternative strategies to prevent bone loss in susceptible populations. Previously, her research team was the first to discover the bone-protective actions of melatonin alone or in combination with strontium citrate, and vitamins D3 and K3.

The OsTea study is part of a larger effort by Witt-Enderby to determine how diet and lifestyle affect bone health. She said her research team is seeing positive effects of the teas on osteoblast differentiation derived from mouse and human bone marrow. Osteoblasts are the bone cells that need to be stimulated to form new bone.

Anyone interested in participating in the three-month OsTea study can call 412-396-4296 to determine their eligibility.

Dr. Paula Witt-Enderby, professor of pharmacology, with some of her students assisting her in the study of the positive effects of certain teas on bone health.