(NU) - New research using cutting-edge Magnetic Resonance Imaging (MRI) for the first time confirms that pharmaceutical grade chondroitin sulphate (CSB-BIO-ACTIVE) significantly helps reduce the effects of osteoarthritis in the knee.

Osteoarthritis is the most common form of arthritis, affecting 27 million people in the U.S. alone. Over time, this condition leads to breakdown of the cartilage and other parts of the joint, causing stiffness, pain and loss of movement. Cartilage is a firm, rubbery covering on the ends of joint bones that reduces friction and acts as a shock absorber. With osteoarthritis, the cartilage loses elasticity and wears away; without the cushioning cartilage provides, the bones can rub against each other. Cartilage deterioration can affect the shape and makeup of the joint so it no longer functions smoothly. Also, bruises called bone marrow lesions can develop inside the bone and may cause knee pain.

Trial results recently published in a leading arthritis journal showed that chondroitin sulphate treatment significantly reduced cartilage loss and bone marrow lesions from osteoarthritis of the knee.

Chondroitin is a natural substance in the body that helps keep cartilage healthy by absorbing fluid and providing building blocks to produce new cartilage. Chondroitin may also block enzymes that break down cartilage.

Recent advances in MRI made it possible for Dr. Jean-Pierre Pelletier and his team at University of Montreal Hospital Research Centre to measure for the first time the impact of chondroitin sulphate on cartilage loss and other changes to the joint, including bone marrow lesions. The latest technology enabled researchers to measure and demonstrate significant improvements after treatment with chondroitin sulphate.

By six months, patients showed significantly less cartilage loss compared with those receiving placebo. By 12 months, treatment significantly decreased bone marrow lesion size.

“Reducing bone marrow lesions may help lessen some of the pain associated with osteoarthritis,” said Dr. Pelletier. “From these results, we can conclude that chondroitin sulfate is a safe drug that significantly reduces the volume of cartilage loss and slows down the progression of osteoarthritis in the knee.” He notes, “Patients must be provided highly purified pharmaceutical-grade chondroitin sulphate, the one used in this study, as this is the only one that can guarantee such efficacy and specifically, safety results.”