

UNDER THE WEATHER Down to the Bone

I saw Bruno in my waiting room and smiled. The friendly, affable Labrador never failed to bring a smile to my face with his perpetually wagging tail and happy face. I called him in when his turn came, and noticed he took a few seconds more to get up and enter. Once he came, however, it was his usual, demanding show of affection which made him the favourite of the staff. He had come for his annual shots, and his physical examination was normal. I enquired about his health, and his guardian reported that she noticed a reluctance to get up in the morning for his walk, an activity which he always looked forward to in the past. Once coaxed out of the house, however, he was his normal self. I prodded a bit more, and told her he might have arthritis. She was surprised. To her Bruno was still a puppy. How could he have arthritis?

The fact is, almost 20% dogs above 1 year of age have early arthritic changes in their joints. This may sound shocking, but these pets show symptoms only when they are 4-5 years of age, since degenerative arthritis is a slowly progressive disease. These changes are imperceptible, and cause no physical symptoms early in the course of the disease. To understand age related arthritis (also called Degenerative Joint Disease), one needs to understand a little bit of joint anatomy. Joints are made of cartilage covered by a lining called synovium. This lining, along with the joint fluid, acts like a shock absorber. The cartilage itself is made of cartilage cells and a supporting substance called matrix made of collagen. Over time, the synovium gets eroded, and the irritation of the lining releases chemicals which are responsible for degeneration of cartilage. This destruction of cartilage causes an alteration in the collagen, causing the joint to erode.

Arthritis is a very slow process, and early symptoms may be imperceptible to guardians. Sometimes the pet may be a little stiff while getting up. Typically this stiffness eases off with a bit of activity. As arthritis advances, slow onset lameness, swollen



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joints, muscle atrophy and joint crepitus may be felt.

Don't ignore early signs of arthritis. Your vet can help you identify the exact cause of arthritis and treat it accordingly. All other causes (infection/trauma, etc) will be ruled out by physical examination, X-rays and blood tests if needed. Advanced imaging techniques like MRI are sometimes needed to rule out injuries or rupture of ligaments in the joints. More invasive tests like analysis of joint fluid may be needed in cases where X-rays and blood tests show evidence of bacterial/fungal infection, and if the joint is swollen, red or painful.

Treatment of arthritis involves a 5-pronged approach:

Weight reduction: This is very important since the joints bear the weight of the entire body, and even a 10-20% reduction in weight reduces the stress on weight bearing joints.

NSAIDs: Formally known as Non-steroidal anti inflammatory drugs. These greatly help to reduce pain and inflammation in affected joints, and keep the pet comfortable.

Joint supplements: These typically have ingredients like Glucosamine, Chondroitin, MSM and vitamin C. They help to heal joint cartilage.

Pentosan injections: These are made of a biochemical substance called proteoglycans, which helps to repair and heal cartilage and form collagen. These are typically given once a week for a month. This cycle may be repeated every 4-6 months.

Nutrition: A good nutritional programme is very important to keep your pet in good shape. Over-nutrition or over-supplementation can have detrimental effects.

I have often seen breeders indiscriminately prescribe calcium tablets, which are necessary for bone health, but have very little role in joint health. These can harm rather than help, since there is a delicate balance between calcium-phosphorus and protein that gets disturbed with overzealous supplementation.

