



Sulfate's Importance for Cartilage Metabolism

Van de Kraan wrote *in J of Orthopedic Research* 8(4) in 1990 that serum sulfate concentration is important in the synthesis of glycosaminoglycan. Low sulfate concentration in the serum leads to inhibition of glycosaminoglycan synthesis. With low sulfate availability, the synthesis of proteoglycan cores in cartilage occurs with a reduced quantity of normal glycosaminoglycan chains.

Individuals with a low serum sulfate concentration might have a lower capacity of glycosaminoglycan synthesis and as a result also a more limited potential of matrix repair than individuals with a high serum sulfate concentration.

Drugs such as anti-inflammatory drugs deplete serum sulfate and this sensitivity might play a role in the susceptibility of certain individuals to osteoarthritis.

See more information in *Low Back Pain: Mechanism, Diagnosis and Treatment* by James M. Cox (6th ed) on pages 340 to 343.