

Citations and Reference Literature: Chondroitin Sulfate

Citations

1. Deal CL, Moskowitz RW. Nutraceuticals as therapeutic agents in osteoarthritis: the role of glucosamine, chondroitin sulfate, and collagen hydrolysate. *Rheum Dis Clin North Am* 1999;25:379-395.
2. Schenck RC Jr. New approaches to the treatment of osteoarthritis: oral glucosamine and chondroitin sulfate. *Instr Course Lect* 2000;49:491-494.
3. L'Hirondel JL. Double-blind clinical study with oral administration of chondroitin sulphate versus placebo in tibiofemoral gonarthrosis (125 patients). *Litera Rheumatol* 1992;14:77-84.
4. Ronca F, Palmieri L, Panicucci P, Ronca G. Anti-inflammatory activity of chondroitin sulfate. *Osteoarthritis Cartilage* 1998;6 Suppl A: 14-21.
5. Adebowale A, Du J, Liang Z et al. The bioavailability and pharmacokinetics of glucosamine hydrochloride and low molecular weight chondroitin sulfate after single and multiple doses to beagle dogs. *Biopharm Drug Dispos* 2002;23:217-225.
6. Product review: Chondroitin sulfate. Accessed December 2000: www.ConsumerLab.com.
7. Product review: Glucosamine and chondroitin. Accessed June 2001: www.ConsumerLab.com.
8. Uesaka S, Nakayama Y, Shirai Y, Yoshihara K. Serum and synovial fluid levels of chondroitin sulfate in patients with osteoarthritis of the knee joint. *J Nippon Med Sch* 2001;68:165-170.
9. Du Souich P, Verges J. Simple approach to predict the maximal effect elicited by a drug when plasma concentrations are not available or are dissociated from the effect, as illustrated with chondroitin sulfate data. *Clin Pharmacol Ther* 2001;70:5-9.
10. McNamara PS, Barr SC, Erb HN. Hematologic, hemostatic, and biochemical effects in dogs receiving an oral chondroprotective agent for thirty days. *Am J Vet Res* 1996;57:1390-1394.
11. Tallia AF, Cardone DA. Asthma exacerbation associated with glucosamine-chondroitin supplement. *J Am Board Fam Pract* 2002;15:481-484.
12. Myers CE Jr. Chondroitin sulfate. *Prostate Forum* 1999;4:8.
13. Myers CE Jr. Chondroitin sulfate and glucosamine. *Prostate Forum* 1999;4:7.
14. De Klerk DP. The glycosaminoglycans of normal and hyperplastic prostate. *Prostate* 1983;4:73-81.
15. De Klerk DP, Lee DV, Human HJ. Glycosaminoglycans of human prostatic cancer. *J Urol* 1984;131:1008-1012.
16. Ricciardelli C, Mayne K, Sykes PJ et al. Elevated stromal chondroitin sulfate glycosaminoglycan predicts progression in early-stage prostate cancer. *Clin Cancer Res* 1997;3:983-992.
17. Ricciardelli C, Mayne K, Sykes PJ et al. Elevated levels of versican but not decorin predict disease progression in early-stage prostate cancer. *Clin Cancer Res* 1998;4:963-971.
18. Ricciardelli C, Quinn DI, Raymond WA et al. Elevated levels of peritumoral chondroitin sulfate are predictive of poor prognosis in patients treated by radical prostatectomy for early-stage prostate cancer. *Cancer Res* 1999;59:2324-2328.
19. Sakk AJ, Ricciardelli C, Mayne K et al. Modulation of prostate cancer cell attachment to matrix by versican. *Cancer Res* 2003;63:4786-4791.
20. McAlindon TE, LaValley MP, Felson DT. Efficacy of glucosamine and chondroitin for treatment of osteoarthritis. *JAMA* 2000;284:1241.
21. Leeb BF, Schweitzer H, Montag K, Smolen JS. A metaanalysis of chondroitin sulfate in the treatment of osteoarthritis. *J Rheumatol* 2000;27:205-211.
22. Reginster JY, Bruyere O, Lecart MP, Henrotin Y. Naturocetic (glucosamine and chondroitin sulfate) compounds as structure-modifying drugs in the treatment of osteoarthritis. *Curr Opin Rheumatol* 2003;15:651-655.
23. Hungerford DS. The role of chondroitin sulfate in the management of osteoarthritis. *Orthop Today* 2003:1-15.
24. Hausheer FH, Kanter P, Cao S et al. Modulation of platinum-induced toxicities and therapeutic index: mechanistic insights and first- and second-generation protecting agents. *Semin Oncol* 1998;25:584-599.
25. Albertini R, De Luca G, Passi A et al. Chondroitin-4-sulfate protects high-density lipoprotein against copper-dependent oxidation. *Arch Biochem Biophys* 1999;365:143-149.
26. Zhang JS, Imai T, Suenaga A, Otagiri M. Molecular-weight-dependent pharmacokinetics and cytotoxic properties of cisplatin complexes prepared with chondroitin sulfate A and C. *Int J Pharm* 2002;240:23-31.
27. Zhang JS, Imai T, Otagiri M. Effects of a cisplatin-chondroitin sulfate A complex in reducing the nephrotoxicity of cisplatin. *Arch Toxicol* 2000;74:300-307.
28. Palmoski MJ, Brandt KD. Effects of some nonsteroidal antiinflammatory drugs on proteoglycan metabolism and organization in canine articular cartilage. *Arthritis Rheum* 1980;23:1010-1020.
29. Brooks PM, Potter SR, Buchanan WW. NSAID and osteoarthritis: help or hindrance? *J Rheumatol* 1982;9:3-5.

Citations and Reference Literature: Chondroitin Sulfate

30. Brandt KD. Effects of nonsteroidal anti-inflammatory drugs on chondrocyte metabolism in vitro and in vivo. *Am J Med* 1987;83:29-34.
31. Rashad S, Revell P, Hemingway A et al. Effect of non-steroidal anti-inflammatory drugs on the course of osteoarthritis. *Lancet* 1989;2:519-522.
32. Shield MJ. Anti-inflammatory drugs and their effects on cartilage synthesis and renal function. *Eur J Rheumatol Inflamm* 1993;13:7-16.
33. Cohen DB, Kawamura S, Ehteshami JR, Rodeo SR. Traditional non-steroidal anti-inflammatory medications and cyclooxygenase-2 inhibitors impair rotator cuff tendon-to-bone healing. Annual Meeting of American Orthopaedic Society for Sports Medicine. Quebec City, Canada; 2004.
34. Cohen DB, Kawamura S, Ehteshami JR, Rodeo SA. Indomethacin and celecoxib impair rotator cuff tendon-to-bone healing. *Am J Sports Med* 2006;34:362-369.
- 34a. Towheed TE, Hochberg MC. A systematic review of randomized controlled trials of pharmacological therapy in osteoarthritis of the knee, with an emphasis on trial methodology. *Semin Arthritis Rheum* 1997;26(5):755-770. (Review)
35. Mazieres B, Loyau G, Menkes CJ et al. [Chondroitin sulfate in the treatment of gonarthrosis and coxarthrosis: 5-month result of a multicenter double-blind controlled prospective study using placebo]. *Rev Rhum Mal Osteoartic* 1992;59:466-472.
36. Conrozier TE. Die Wirkung von Chondroitinsulfat bei Behandlung der Hüftgelenksarthrose. *Lit Rheumatol* 1992;14:69-75.
37. Morreale P, Manopulo R, Galati M et al. Comparison of the antiinflammatory efficacy of chondroitin sulfate and diclofenac sodium in patients with knee osteoarthritis. *J Rheumatol* 1996;23:1385-1391.
38. Bucsi L, Poor G. Efficacy and tolerability of oral chondroitin sulfate as a symptomatic slow-acting drug for osteoarthritis (SYSADOA) in the treatment of knee osteoarthritis. *Osteoarthritis Cartilage* 1998;6 Suppl A:31-36.
39. Bourgeois P, Chales G, Dehais J et al. Efficacy and tolerability of chondroitin sulfate 1200 mg/day vs chondroitin sulfate 3 × 400 mg/day vs placebo. *Osteoarthritis Cartilage* 1998;6 Suppl A:25-30.
40. Uebelhart D, Thonar EJ, Delmas PD et al. Effects of oral chondroitin sulfate on the progression of knee osteoarthritis: a pilot study. *Osteoarthritis Cartilage* 1998;6 Suppl A:39-46.
41. El Hajjaji H, Marcelis A, Devogelaer JP, Manicourt DH. Celecoxib has a positive effect on the overall metabolism of hyaluronan and proteoglycans in human osteoarthritic cartilage. *J Rheumatol* 2003;30:2444-2451.
42. Jordan KM, Sawyer S, Coakley P et al. The use of conventional and complementary treatments for knee osteoarthritis in the community. *Rheumatology (Oxford)* 2004;43:381-384.
43. Abdel Fattah W, Hammad T. Chondroitin sulfate and glucosamine: a review of their safety profile. *J Am Nutraceutical Assoc* 2001;3.
44. Rozenfeld V, Crain JL, Callahan AK. Possible augmentation of warfarin effect by glucosamine-chondroitin. *Am J Health Syst Pharm* 2004;61:306-307.
45. Scott GN. Interaction of warfarin with glucosamine-chondroitin. *Am J Health Syst Pharm* 2004;61:1186; author reply 1186.
46. Shankland WE 2nd. The effects of glucosamine and chondroitin sulfate on osteoarthritis of the TMJ: a preliminary report of 50 patients. *Cranio* 1998;16:230-235.
47. Leffler CT, Philippi AF, Leffler SG et al. Glucosamine, chondroitin, and manganese ascorbate for degenerative joint disease of the knee or low back: a randomized, double-blind, placebo-controlled pilot study. *Mil Med* 1999;164:85-91.
48. Lippiello L, Woodward J, Karpman R, Hammad TA. In vivo chondroprotection and metabolic synergy of glucosamine and chondroitin sulfate. *Clin Orthop* 2000;229-240.
49. Das A Jr, Hammad TA. Efficacy of a combination of FCHG49 glucosamine hydrochloride, TRH122 low molecular weight sodium chondroitin sulfate and manganese ascorbate in the management of knee osteoarthritis. *Osteoarthritis Cartilage* 2000;8:343-350.
50. Denham AC, Newton WP. Are glucosamine and chondroitin effective in treating osteoarthritis? *J Fam Pract* 2000;49:571-572.
51. Towheed TE. Published meta-analyses of pharmacological therapies for osteoarthritis. *Osteoarthritis Cartilage* 2002;10:836-837.
52. Scroggie DA, Albright A, Harris MD. The effect of glucosamine-chondroitin supplementation on glycosylated hemoglobin levels in patients with type 2 diabetes mellitus: a placebo-controlled, double-blinded, randomized clinical trial. *Arch Intern Med* 2003;163:1587-1590.
53. Richy F, Bruyere O, Ethgen O et al. Structural and symptomatic efficacy of glucosamine and chondroitin in knee osteoarthritis: a comprehensive meta-analysis. *Arch Intern Med* 2003;163:1514-1522.
54. Cohen M, Wolfe R, Mai T, Lewis D. A randomized, double blind, placebo controlled trial of a topical cream containing glucosamine sulfate, chondroitin sulfate, and camphor for osteoarthritis of the knee. *J Rheumatol* 2003;30:523-528.
55. Clegg DO, Reda DJ, Harris CL et al. The efficacy of glucosamine and chondroitin sulfate in patients with painful knee osteoarthritis (OA): the Glucosamine/chondroitin Arthritis Intervention Trial (GAIT). American College of Rheumatology Meeting. San Diego; 2005.

Citations and Reference Literature: Chondroitin Sulfate

56. Clegg DO, Reda DJ, Harris CL et al. Glucosamine, chondroitin sulfate, and the two in combination for painful knee osteoarthritis. *N Engl J Med* 2006;354:795-808.
57. Barnhill JG, Fye CL, Williams DW et al. Chondroitin product selection for the glucosamine/chondroitin arthritis intervention trial. *J Am Pharm Assoc (Wash DC)* 2006;46:14-24.
58. Hunter DJ, Zhang YQ, Niu JB et al. The association of meniscal pathologic changes with cartilage loss in symptomatic knee osteoarthritis. *Arthritis Rheum* 2006;54:795-801.
59. McAlindon TE, Jacques P, Zhang Y et al. Do antioxidant micronutrients protect against the development and progression of knee osteoarthritis? *Arthritis Rheum* 1996;39:648-656.

Reference Literature

- [No author listed.] Product review: glucosamine and chondroitin. Available at <http://www.ConsumerLab.com>. Accessed June 14, 2001.
- [No author listed.] Product review. Available at <http://www.consumerlab.com>. Accessed December 5, 2000.
- [No author listed.] ConsumerLab.com: some supplements for arthritis may exceed newly released safe intake levels for manganese. PR Newswire; January 29, 2001. (Press Release)
- Abadie E, Ethgen D, Avouac B, et al. Recommendations for the use of new methods to assess the efficacy of disease-modifying drugs in the treatment of osteoarthritis. *Osteoarthritis Cartilage* 2004;12(4):263-268. (Review)
- Abdel Fattah W, Hammad T. Chondroitin sulfate and glucosamine: a review of their safety profile. *J Am Nutraceutical Assoc* 2001;3:16-23. (Review)
- Adebawale AO, Cox DS, Liang Z, et al. Analysis of glucosamine and chondroitin sulfate content in marketed products and the Caco-2 permeability of chondroitin sulfate raw materials. *J Am Nutraceutical Assoc* 2000;3:37-44.
- Bagasra O, Whittle P, Heins B, et al. Anti-human immunodeficiency virus type 1 activity of sulfated monosaccharides: comparison with sulfated polysaccharides and other polyions. *J Infect Dis* 1991;164(6):1082-1090.
- Baggio B, Gambaro G, Marchini F, et al. Correction of erythrocyte abnormalities in idiopathic calcium-oxalate nephrolithiasis and reduction of urinary oxalate by oral glycosaminoglycans. *Lancet* 1991;338:403-405.
- Barnhill JG, Fye CL, Williams DW, et al. Chondroitin product selection for the Glucosamine/Chondroitin Arthritis Intervention Trial. *J Am Pharm Assoc* 2006;46(1):14-24.
- Barthe L, Woodley J, Lavit M, et al. In vitro intestinal degradation and absorption of chondroitin sulfate, a glycosaminoglycan drug. *Arzneimittelforschung* 2004;54(5):286-292.
- Bergamaschi G, Carlo-Stella C, Pedrazzoli P, et al. [Evaluation of the intestinal absorption of iron orally administered as chondroitin sulfate in normal subjects.] *Minerva Med* 1989;80(5):451-454.
- Biggee BA, McAlindon T. Glucosamine for osteoarthritis: part II, biologic and metabolic controversies. *Med Health R I* 2004;87(6):180-181. (Review)
- Biggee BA, McAlindon T. Glucosamine for osteoarthritis: part I, review of the clinical evidence. *Med Health R I* 2004;87(6):176-179. (Review)
- Blotman F, Loyau G. Clinical trial with chondroitin sulfate in gonarthrosis. *Osteoarthritis Cartilage* 1993;1:68. (Abstract)
- Bourgeois P, Chales G, Dehais J, et al. Efficacy and tolerability of chondroitin sulfate 1200 mg/day vs chondroitin sulfate 3 x 400 mg/day vs placebo. *Osteoarthritis Cartilage* 1998;6(Suppl A):25-30.
- Brandt KD. Effects of nonsteroidal anti-inflammatory drugs on chondrocyte metabolism in vitro and in vivo. *Am J Med* 1987;83:29-34.
- Brief AA, Maurer SG, Di Cesare PE. Use of glucosamine and chondroitin sulfate in the management of osteoarthritis. *J Am Acad Orthop Surg* 2001;9(2):71-78. (Review)
- Brooks PM, Potter SR, Buchanan WW. NSAID and osteoarthritis-help or hindrance. *J Rheumatol* 1982;9:3-5. (Editorial)
- Brown KE, Leong K, Huang C, et al. Gelatin/chondroitin 6-sulfate microspheres for the delivery of therapeutic proteins to the joint. *Arthritis Rheum* 1998;41(12):2185-2195.
- Bucsi L, Poor G. Efficacy and tolerability of oral chondroitin sulfate as a symptomatic slow-acting drug for osteoarthritis (SYSADOA) in the treatment of knee osteoarthritis. *Osteoarthritis Cartilage* 1998;6(Suppl A):31-36.
- Campo GM, Avenoso A, Campo S, et al. Reduction of DNA fragmentation and hydroxyl radical production by hyaluronic acid and chondroitin-4-sulphate in iron plus ascorbate-induced oxidative stress in fibroblast cultures. *Free Radic Res* 2004;38(6):601-611.
- Cao LC, Boeve ER, de Bruijn WC, et al. Glycosaminoglycans and semisynthetic sulfated polysaccharides: an overview of their potential application in treatment of patients with urolithiasis. *Urology* 1997;50(2):173-183. (Review)
- Cardoso LE, Falcao PG, Sampaio FJ. Increased and localized accumulation of chondroitin sulphate proteoglycans in the hyperplastic human prostate. *BJU Int* 2004;93(4):532-538.

Citations and Reference Literature: Chondroitin Sulfate

- Chavez ML. Glucosamine sulfate and chondroitin sulfates. *Hosp Pharm* 1997;32(9):1275-1285.
- Cho SY, Sim JS, Jeong CS, et al. Effects of low molecular weight chondroitin sulfate on type II collagen-induced arthritis in DBA/1J mice. *Biol Pharm Bull* 2004;27(1):47-51.
- Clegg DO, Reda DJ, Harris CL, et al, for the GAIT Investigators. The efficacy of glucosamine and chondroitin sulfate in patients with painful knee osteoarthritis (OA): the Glucosamine/chondroitin Arthritis Intervention Trial (GAIT). Plenary session, American College of Rheumatology (ACR) Meeting, San Diego, Nov 14, 2005.
- Clegg DO, Reda DJ, Harris CL, et al. Glucosamine, chondroitin sulfate, and the two in combination for painful knee osteoarthritis. *N Engl J Med* 2006;354:795-808.
- Cohen M, Wolfe R, Mai T, et al. A randomised, double-blind, placebo-controlled trial of a topical cream containing glucosamine sulfate, chondroitin sulfate and camphor for osteoarthritis of the knee. *J Rheumatol* 2003;30:523-528.
- Conrozier T. [Anti-arthrosis treatments: efficacy and tolerance of chondroitin sulfates (CS 4&6).] *Presse Med* 1998;27(36):1862-1865. [French]
- Conte A, Volpi N, Palmieri L, et al. Biochemical and pharmacokinetic aspects of oral treatment with chondroitin sulfate. *Arzneimittelforschung* 1995;45:918-925.
- Curtis CL, Harwood JL, Dent CM, et al. Biological basis for the benefit of nutraceutical supplementation in arthritis. *Drug Discov Today* 2004;9(4):165-172. Erratum in *Drug Discov Today* 2004;9(7):336. (Review)
- Danao-Camara T. Potential side effects of treatment with glucosamine and chondroitin. *Arthritis Rheum* 2000;43(12):2853.
- Das A, Hammond TA. Efficacy of a combination of FCHG49 glucosamine hydrochloride, TRH122 low molecular weight sodium chondroitin sulfate and manganese ascorbate in the management of knee osteoarthritis. *Osteoarthritis Cartilage* 2000;8(5):343-350.
- Davenport G, Primary Care Rheumatology Society Steering Committee. Rheumatology and musculoskeletal medicine. *Br J Gen Pract* 2004;54(503):457-464.
- Deal CL, Moskowitz RW. Nutraceuticals as therapeutic agents in osteoarthritis: the role of glucosamine, chondroitin sulfate, and collagen hydrolysate. *Rheum Dis Clin North Am* 1999;25(2):379-395. (Review)
- Deepa SS, Umehara Y, Higashiyama S, et al. Specific molecular interactions of oversulfated chondroitin sulfate E with various heparin-binding growth factors: implications as a physiological binding partner in the brain and other tissues. *J Biol Chem* 2002;277(46):43707-43716.
- Dervin GF. Management of the arthritic knee in older people. *Geriatr Aging* 2003;6:8:20-24.
- Di Caro A, Perola E, Bartolini B, et al. Fractions of chemically oversulphated galactosaminoglycan sulphates inhibit three enveloped viruses: human immunodeficiency virus type 1, herpes simplex virus type 1 and human cytomegalovirus. *Antivir Chem Chemother* 1999;10(1):33-38.
- DiNubile NA. The role of exercise in the treatment of osteoarthritis. *Am J Med Sports* 1999;1:188-200.
- Doillon CJ, Watsky MA, Hakim M, et al. A collagen-based scaffold for a tissue engineered human cornea: physical and physiological properties. *Int J Artif Organs* 2003;26(8):764-773.
- Du J, White N, Eddington ND. The bioavailability and pharmacokinetics of glucosamine hydrochloride and chondroitin sulfate after oral and intravenous single dose administration in the horse. *Biopharm Drug Dispos* 2004;25(3):109-116.
- Eisenmann KM, McCarthy JB, Simpson MA, et al. Melanoma chondroitin sulphate proteoglycan regulates cell spreading through Cdc42, Ack-1 and p130cas. *Nat Cell Biol* 1999;1(8):507-513.
- Felson DT. Osteoarthritis of the knee. *N Engl J Med* 2006;354:841-848.
- Fleish AM, Merlin C, Imhoff A, et al. A one-year randomized, double-blind, placebo-controlled study with oral chondroitin sulfate in patients with knee osteoarthritis. *Osteoarthritis Cartilage* 1997;5:70.
- Fraenkel L, Bogardus ST Jr, Concato J, et al. Treatment options in knee osteoarthritis: the patient's perspective. *Arch Intern Med* 2004;164(12):1299-1304.
- Freeman MR, Song Y, Carson DD, et al. Extracellular matrix and androgen receptor expression associated with spontaneous transformation of rat prostate fibroblasts. *Cancer Res* 1991;51(7):1910-1916.
- Funderburg FM, Langford JK, Hiltgen GG. Chondroitin sulfate proteoglycans: do they play a role during cardiac morphogenesis? *Prog Clin Biol Res* 1991;373:227-243.
- Gaby AR. Natural treatments for osteoarthritis. *Altern Med Rev* 1999;4(5):330-341. (Review)
- Glynne-Jones E, Harper ME, Seery LT, et al. TENB2, a proteoglycan identified in prostate cancer that is associated with disease progression and androgen independence. *Int J Cancer* 2001;94(2):178-184.
- Goedert MR, Jakes R, Spillantini MG, et al. Assembly of microtubule-associated protein tau into Alzheimer-like filaments induced by sulphated glycosaminoglycans. *Nature* 1996;383:550-553.
- Goulas A, Hatzichristou DG, Karakiulakis G, et al. Benign hyperplasia of the human prostate is associated with tissue enrichment in chondroitin sulphate of wide size distribution. *Prostate* 2000;44(2):104-110.

Citations and Reference Literature: Chondroitin Sulfate

- Grainger R, Ciccuttini FM. Medical management of osteoarthritis of the knee and hip joints. *Med J Aust* 2004;180(5):232-236. (Review)
- Greene A. Questions & answers: NIH Glucosamine/ Chondroitin Arthritis Intervention Trial (GAIT) 2002. Available at <http://nccam.nih.gov/news/19972000/121100/qa.htm>. Accessed February 10, 2003.
- Grove ML. A randomized, double blind, placebo controlled trial of a topical cream containing glucosamine sulfate, chondroitin sulfate, and camphor for osteoarthritis of the knee. *J Rheumatol* 2004;31(4):826-827.
- Ha BJ, Lee JY. The effect of chondroitin sulfate against CCl₄-induced hepatotoxicity. *Biol Pharm Bull* 2003;26(5):622-626.
- Hardingham T. Chondroitin sulfate (Condrosulf) and joint disease: III. International Congress of the Osteoarthritis Research Society. Singapore, Jun 7, 1997.
- Haas S, Walenga JM, Jeske WP, et al. Heparin-induced thrombocytopenia: clinical considerations of alternative anticoagulation with various glycosaminoglycans and thrombin inhibitors. *Clin Appl Thromb Hemost* 1999;5:52-59.
- Hickery MS, Bayliss MT, Dudhia J, et al. Age-related changes in the response of human articular cartilage to IL-1alpha and transforming growth factor-beta (TGF-beta): chondrocytes exhibit a diminished sensitivity to TGF-beta. *J Biol Chem* 2003;278(52):53063-53071.
- Hochberg MC. Nutritional supplements for knee osteoarthritis: still no resolution. *N Engl J Med* 2006;354:858-860. (Editorial)
- Hochberg MC, Dougados M. Pharmacological therapy of osteoarthritis. *Best Pract Res Clin Rheumatol* 2001;15(4):583-593. (Review)
- Horsfall DJ, Mayne K, Skinner JM, et al. Glycosaminoglycans of guinea pig prostate fibromuscular stroma: influence of estrogen and androgen on levels and location of chondroitin sulfate. *Prostate* 1994;25(6):320-332.
- Hungerford DS. The role of chondroitin sulfate in the management of osteoarthritis: Orthopedics Today June 2003. Available at <http://www.slackinc.com/bone/ortoday/supp/0306/symposium.htm>. Accessed August 25, 2004. (Review)
- Hungerford DS. Treating osteoarthritis with chondroprotective agents. *Orthopedic Special Edition* 1998;4:39-42.
- Hungerford DS, Jones LC. Glucosamine and chondroitin sulfate are effective in the management of osteoarthritis. *J Arthroplasty* 2003;18(3 Suppl 1):5-9. (Review)
- Hungerford MW, Valaik D. Chondroprotective agents: glucosamine and chondroitin. *Foot Ankle Clin* 2003;8(2):201-219. (Review)
- Hunter DJ, Zhang YQ, Niu JB, et al. The association of meniscal pathologic changes with cartilage loss in symptomatic knee osteoarthritis. *Arthritis Rheum* 2006;54(3):795-801.
- Ibbotson T, Perry CM. Danaparoid: a review of its use in thromboembolic and coagulation disorders. *Drugs* 2002;62(15):2283-2314. (Review)
- Iida J, Meijne AL, Oegema TR, et al. A role of chondroitin sulfate glycosaminoglycan binding site in ((4)(1) integrin-mediated melanoma cell adhesion. *J Biol Chem* 1998;273:5955-5962.
- Iozzo RV, Cohen I. Altered proteoglycan gene expression and the tumor stroma. *Experientia* 1993;49(5):447-455.
- Isogai Z, Shinomura T, Yamakawa N, et al. 2B1 antigen characteristically expressed on extracellular matrices of human malignant tumors is a large chondroitin sulfate proteoglycan, PG-M/versican. *Cancer Res* 1996;56(17):3902-3908.
- Izuka K, Murata K, Nakazawa K, et al. Effects of chondroitin sulfates on serum lipids and hexosamines in atherosclerotic patients: with special reference to thrombus formation time. *Jpn Heart J* 1968;9:453-460.
- Jurkiewicz E, Panse P, Jentsch KD, et al. In vitro anti-HIV-1 activity of chondroitin polysulphate. *AIDS* 1989;3(7):423-427.
- Kelly GS. The role of glucosamine sulfate and chondroitin sulfates in the treatment of degenerative joint disease. *Alt Med Rev* 1998;3(1):27-39. (Review)
- Kerzberg EM, Roldan EJA, Castelli G, et al. Combination of glycosaminoglycans and acetylsalicylic acid in knee osteoarthritis. *Scand J Rheumatol* 1987;16:377-380.
- L'Hirondel JL. [Double-blind clinical study with oral administration of chondroitin sulphate versus placebo in tibiofemoral gonarthrosis (125 patients).] *Litera Rheumatol* 1992;14:77-84. [German]
- Leblan D, Chantre P, Fournie B. Harpagophytum procumbens in the treatment of knee and hip osteoarthritis: four-month results of a prospective, multicenter, double-blind trial versus diacerhein. *Joint Bone Spine* 2000;67(5):462-467.
- Lee JY, Lee SH, Kim HJ, et al. The preventive inhibition of chondroitin sulfate against the CCl₄-induced oxidative stress of subcellular level. *Arch Pharm Res* 2004;27(3):340-345.
- Leeb BF. Glucosamine and chondroitin sulfate for the treatment of osteoarthritis: comment on the article by Akama and Saito. *Arthritis Rheum* 2001;45(6):537-538. PMID: 11762688. (Letter; Comment)
- Leeb BF. Management of knee osteoarthritis. *Ann Rheum Dis* 2001;60(10):984. PMID: 11589177.
- Leeb BF, Schweitzer H, Montag K, et al. A metaanalysis of chondroitin sulfate in the treatment of osteoarthritis. *J Rheumatol* 2000;27(1):205-211.
- Leeb BF, Petera P, Neumann K. [Results of a multicenter study of chondroitin sulfate (Condrosulf) use in arthroses of the finger, knee and hip joints.] *Wien Med Wochenschr* 1996;146(24):609-614. [German]

Citations and Reference Literature: Chondroitin Sulfate

- Leffler CT, Philippi AF, Leffler SG, et al. Glucosamine, chondroitin, and manganese ascorbate for degenerative joint disease of the knee or low back: a randomized, double-blind, placebo-controlled pilot study. *Mil Med* 1999;164(2):85-91.
- Lenclud C, Chapelle P, van Mylem A, et al. Effects of chondroitin sulfate on snoring characteristics: a pilot study. *Curr Ther Res* 1998;59:234-243.
- Lequesne MG. Symptomatic slow acting drugs in osteoarthritis: a novel therapeutic concept? *Rev Rhum* 1994;61:69-73.
- Lequesne M, Brandt K, Bellamy N, et al. Guidelines for testing slow acting drugs in arthritis: addendum. *J Rheumatol* 1995;22(7):1442.
- Lequesne M, Brandt K, Bellamy N, et al. Guidelines for testing slow acting drugs in osteoarthritis. *J Rheumatol Suppl* 1994;41:65-73. Erratum in *J Rheumatol Suppl* 1994;21(12):2395.
- Li Q, Williams CG, Sun DD, et al. Photocrosslinkable polysaccharides based on chondroitin sulfate. *J Biomed Mater Res* 2004;68A(1):28-33.
- Limberg MB, McCaa C, Kissling GE, et al. Topical application of hyaluronic acid and chondroitin sulfate in the treatment of dry eyes. *Am J Ophthalmol* 1987;103(2):194-197.
- Lippiello L. Glucosamine and chondroitin sulfate: biological response modifiers of chondrocytes under simulated conditions of joint stress. *Osteoarthritis Cartilage* 2003;11(5):335-342.
- Lippiello L, Karpman RR, Hammad T. Synergistic effect of glucosamine HCL and chondroitin sulfate on in vitro proteoglycan synthesis by bovine chondrocytes. Presented at American Academy of Orthopaedic Surgeons 67th Annual Meeting. Orlando, FL, Mar 15, 2000.
- Lippiello L, Woodward J, Karpman R, et al. In vivo chondroprotection and metabolic synergy of glucosamine and chondroitin sulfate. *Clin Orthop* 2000;(381):229-240.
- Longyhore DS, Seaton TL. Glucosamine and chondroitin effective for knee osteoarthritis. *J Fam Pract* 2003;52(12):919-920.
- Luchter-Wasylewska E, Dulinska J, Ostrowski WS, et al. Stabilization of human prostatic acid phosphatase by coupling with chondroitin sulfate. *Biotechnol Appl Biochem* 1991;13(1):36-47.
- Luo J, Dunn T, Ewing C, et al. Gene expression signature of benign prostatic hyperplasia revealed by cDNA microarray analysis. *Prostate* 2002;51(3):189-200.
- Madry H, Kohn D. [Pharmacological and non-pharmacological treatment of knee osteoarthritis.] *Unfallchirurg* 2004. Epub ahead of print. [German]
- Malaise M, Marcolongo R, Uebelhart D, et al. Efficacy and tolerability of 800 mg oral chondroitin sulfate in the treatment of knee osteoarthritis: a randomized double-blind multicentre study versus placebo. *Litera Rheumatologica* 1999;24:31-42.
- Mazieres B, Combe B, Phan Van A, et al. Chondroitin sulfate in osteoarthritis of the knee: a prospective, double blind, placebo controlled multicenter clinical study. *J Rheumatol* 2001;28(1):173-181.
- Mazieres B, Loyau G, Menkes CJ, et al. [Chondroitin sulfate in the treatment of gonarthrosis and coxarthrosis: 5-months result of a multicenter double-blind controlled prospective study using placebo.] *Rev Rhum Mal Osteoartic* 1992;59(7-8):466-472. [French; English abstract]
- McAlindon T. Glucosamine and chondroitin for osteoarthritis? *Bull Rheum Dis* 2001;50(7):1-4. (Review)
- McAlindon TE, LaValley MP, Gulin JP, et al. Glucosamine and chondroitin for treatment of osteoarthritis: a systematic quality assessment and meta-analysis. *JAMA* 2000;283(11):1469-1475.
- McGee M, Wagner WD. Chondroitin sulfate anticoagulant activity is linked to water transfer: relevance to proteoglycan structure in atherosclerosis. *Arterioscler Thromb Vasc Biol* 2003;23(10):1921-1927.
- McMillan DE. A brief history of the neurobehavioral toxicity of manganese: some unanswered questions. *Neurotoxicology* 1999;20(2-3):499-507. (Review)
- Menzel EJ. [Polymeric chondroitin sulfate vs. monomeric glucosamine for the treatment of osteoarthritis.] *Wien Med Wochenschr* 2000;150(5):87-90. [German] (Review)
- Michel BA, Stucki G, Frey D, et al. Chondroitins 4 and 6 sulfate in osteoarthritis of the knee: a randomized, controlled trial. *Arthritis Rheum* 2005;52(3):779-786.
- Morreale P, Manopulo R, Galati M, et al. Comparison of the anti-inflammatory efficacy of chondroitin sulfate and diclofenac sodium in patients with knee osteoarthritis. *J Rheumatol* 1996;23(8):1385-1391.
- Morrison LM. Reduction of ischemic coronary heart disease by chondroitin sulfate A. *Angiology* 1971;22(3):165-174.
- Morrison LM. Treatment of coronary arteriosclerotic heart disease with chondroitin sulfate-A: preliminary report. *J Am Geriatr Soc* 1968;16(7):779-785.
- Morrison LM, Bajwa GS, Alfin-Slater RB, et al. Prevention of vascular lesions by chondroitin sulfate A in the coronary artery and aorta of rats induced by a hypervitaminosis D, cholesterol-containing diet. *Atherosclerosis* 1972;16:105-118.
- Morrison LM, Branwood AW, Ershoff BH, et al. The prevention of coronary arteriosclerotic heart disease with chondroitin sulfate A: preliminary report. *Exp Med Surg* 1969;27(3):278-289.

Citations and Reference Literature: Chondroitin Sulfate

- Morrison LM, Enrick NL. Coronary heart disease: reduction of death rate by chondroitin sulfate A. *Angiology* 1973;24:269-282.
- Moss M, Kruger GO, Reynolds DC. The effect of chondroitin sulfate on bone healing. *Oral Surg Oral Med Oral Pathol* 1965;20:795-801.
- Muller G, Kramer A. In vitro action of a combination of selected antimicrobial agents and chondroitin sulfate. *Chem Biol Interact* 2000;124(2):77-85. (Abstract)
- Nakano T, Imai S, Koga T, et al. Monoclonal antibodies to the large chondroitin sulphate proteoglycan from bovine temporomandibular joint disc. *Matrix* 1993;13(3):243-254.
- Nakazawa K. Effect of chondroitin sulfates on atherosclerosis: I: long term oral administration of chondroitin sulfates to atherosclerotic subjects. *Nippon Naika Gakkai Zasshi* 1970;59:1084-1092. [Japanese]
- Nakazawa K, Murata K. Comparative study of the effects of chondroitin sulfate isomers on atherosclerotic subjects. *ZFA* 1979;34:153-159.
- Nasonova VA, Alekseeva LI, Arkhangel'skaia GS, et al. [Results of the multicenter clinical trial of structum preparation in Russia.] *Ter Arkh* 2001;73(11):84-87.
- National Institutes of Health. Glucosamine/Chondroitin Arthritis Intervention Trial begins patient recruitment. NIH News Release. Bethesda, MD: National Institutes of Health, National Center for Complementary and Alternative Medicine; 2000.
- Nguyen P, Mohamed SE, Gardiner D, et al. A randomized double-blind clinical trial of the effect of chondroitin sulfate and glucosamine hydrochloride on temporomandibular joint disorders: a pilot study. *Cranio* 2001;19(2):130-139.
- Noulas AV, Skandalis SS, Feretis E, et al. Variations in content and structure of glycosaminoglycans of the vitreous gel from different mammalian species. *Biomed Chromatogr* 2004;18(7):457-461.
- Obara M, Hirano H, Ogawa M, et al. Does chondroitin sulfate defend the human uterine cervix against ripening in threatened premature labor? *Am J Obstet Gynecol* 2000;182(2):334-339.
- Palmoski MJ, Brandt KD. Effects of some nonsteroidal antiinflammatory drugs on proteoglycan metabolism and organization in canine articular cartilage. *Arthritis Rheum* 1980;23:1010-1020.
- Pavelka K, Manopulo R, Bucsi L. Double-blind, dose-effect study of oral Chondroitin 4&6 Sulfate 1200 mg, 800 mg, 200 mg and placebo in the treatment of knee osteoarthritis. *Litera Rheumatologica* 1998;24:21-20.
- Perin JP, Alliel PM, Jolles P, et al. Proteoglycans in male reproductive tract. *EXS* 1994;70:191-197. (Review)
- Pipitone VR. Chondroprotection with chondroitin sulfate. *Drugs Exp Clin Res* 1991;17(1):3-7. (Review)
- Pizzorusso T, Medini P, Berardi N, et al. Reactivation of ocular dominance plasticity in the adult visual cortex. *Science* 2002;298(5596):1248-1251.
- Priebe D, McDiarmid T, Mackler L, et al. Do glucosamine or chondroitin cause regeneration of cartilage in osteoarthritis? *J Fam Pract* 2003;52(3):237-239.
- Rashad S, Revell P, Hemingway A, et al. Effect of nonsteroidal anti-inflammatory drugs on the course of osteoarthritis. *Lancet* 1989;2:519-522.
- Reginster JY. [Chondromodulation in 2003: dream or reality?] *Rev Med Suisse Romande* 2004;124(2):85-87. [French] (Review)
- Reginster JY, Bruyere O, Henrotin Y. New perspectives in the management of osteoarthritis. structure modification: facts or fantasy? *J Rheumatol Suppl* 2003;67:14-20. (Review)
- Reynolds JEF, Parfitt K, Parsons AV, et al, eds. *Martindale: the extra pharmacopoeia*. 31st ed. London: Royal Pharmaceutical Society of Great Britain; 1996:1688-1689.
- Richy F, Bruyere O, Ethgen O, et al. Structural and symptomatic efficacy of glucosamine and chondroitin in knee osteoarthritis: a comprehensive meta-analysis. *Arch Intern Med* 2003;163(13):1514-1522.
- Rodriguez JP, Santibanez JF, Martinez J. Soluble factors secreted by PC-3 cells induce structural changes in proteoglycans produced by fetal rat osteoblasts. *Tumour Biol* 1998;19(1):19-29.
- Ronca F, Palmieri L, Panicucci P, et al. Anti-inflammatory activity of chondroitin sulfate. *Osteoarthritis Cartilage* 1998; 6(Suppl A):14-21.
- Rovetta G. Galactosaminoglycuronoglycan sulfate (Matrix) in therapy of tibiofibular osteoarthritis of the knee. *Drugs Exp Clin Res* 1991;17:53-57.
- Rovetta G, Monteforte P, Molfetta G, et al. A two-year study of chondroitin sulfate in erosive osteoarthritis of the hands: behavior of erosions, osteophytes, pain and hand dysfunction. *Drugs Exp Clin Res* 2004;30(1):11-16.
- Schamhart DH, Kurth KH. Role of proteoglycans in cell adhesion of prostate cancer cells: from review to experiment. *Urol Res* 1997;25(Suppl 2):S89-S96.
- Scott GN. Glucosamine-chondroitin interaction with warfarin. *Pharmacist's Letter/Prescriber's Letter Detail* 2004;Document #200305.

Citations and Reference Literature: Chondroitin Sulfate

- Scroggie DA, Albright A, Harris MD. The effect of glucosamine-chondroitin supplementation on glycosylated hemoglobin levels in patients with type 2 diabetes mellitus: a placebo-controlled, double-blinded, randomized clinical trial. *Arch Intern Med* 2003;163(13):1587-1590.
- Shankland WE. The effects of glucosamine and chondroitin sulfate on osteoarthritis of the TMJ: a preliminary report of 50 patients. *Cranio* 1998;16(4):230-235.
- Shetlar MR, Shetlar CL, Kischer CW. Healing of myocardial infarction in animal models. *Tex Rep Biol Med* 1979;39:339-355.
- Shield MJ. Anti-inflammatory drugs and their effects on cartilage synthesis and renal function. *Eur J Rheumatol Inflamm* 1993;13:7-16.
- Silverstein FE, Faich G, Goldstein JL, et al. Gastrointestinal toxicity with celecoxib vs nonsteroidal anti-inflammatory drugs for osteoarthritis and rheumatoid arthritis: the CLASS study: a randomized controlled trial celecoxib long-term arthritis safety study. *JAMA* 2000;284:1247-1253.
- Sinkov V, Cymet T. Osteoarthritis: understanding the pathophysiology, genetics, and treatments. *J Natl Med Assoc* 2003;95:6:475-482.
- Soeken KL, Lee WL, Bausell RB, et al. Safety and efficacy of S-adenosylmethionine (SAMe) for osteoarthritis. *J Fam Pract* 2002;51(5):425-430. (Review)
- Soeken KL. Selected CAM therapies for arthritis-related pain: the evidence from systematic reviews. *Clin J Pain* 2004;20(1):13-18. (Review)
- Steinhoff G, Ittah B, Rowan S. The efficacy of chondroitin sulfate 0.2% in treating interstitial cystitis. *Can J Urol* 2002;9(1):1454-1458.
- Steinhoff G, Ittah B, Rowan S. The efficacy of intravesicular sterile sodium chondroitin sulfate 0.2% in potassium tested positive patients with interstitial cystitis. *Adv Exp Med Biol* 2003;539(Pt B):731-739.
- Suwiwat S, Ricciardelli C, Tammi R, et al. Expression of extracellular matrix components versican, chondroitin sulfate, tenascin, and hyaluronan, and their association with disease outcome in node-negative breast cancer. *Clin Cancer Res* 2004;10(7):2491-2498.
- Tannenbaum H, Peloso PM, Russell AS, et al. An evidence-based approach to prescribing NSAIDs in the treatment of osteoarthritis and rheumatoid arthritis: the Second Canadian Consensus Conference. *Can J Clin Pharmacol* 2000;7(Suppl A):4A-16A. (Review)
- Tardy-Poncet B, Reynaud J, Tardy B, et al. [Thrombopenia induced by heparin: treatment with Org 10172: tolerability and efficacy.] *Presse Med* 1996;25(16):751-755. [French]
- Terry DE, Clark AF. Influence of testosterone on chondroitin sulphate proteoglycan in the rat prostate. *Biochem Cell Biol* 1996;74(5):645-651.
- Theoharides TC, Sant GR. New agents for the medical treatment of interstitial cystitis. *Expert Opin Investig Drugs* 2001;10(3):521-546. (Review)
- Touab M, Villena J, Barranco C, et al. Versican is differentially expressed in human melanoma and may play a role in tumor development. *Am J Pathol* 2002;160(2):549-557.
- Towheed TE, Hochberg MC. A systematic review of randomized controlled trials of pharmacological therapy in osteoarthritis of the knee, with an emphasis on trial methodology. *Semin Arthritis Rheum* 1997;26(5):755-770. (Review)
- Towheed TE, Anastassiades TP. Glucosamine and chondroitin for treating symptoms of osteoarthritis. *JAMA* 2000;283(11):1483-1484.
- Tully SE, Mabon R, Gama CI, et al. A chondroitin sulfate small molecule that stimulates neuronal growth. *J Am Chem Soc* 2004;126(25):7736-7737.
- Uebelhart D, Chantraine A. [Efficacite clinique du sulfate de chondroitine dans la gonarthrose: etude randomisee en double-insu versus placebo.] *Rev Rhumatisme* 1994;10:692. (Abstract)
- Uebelhart D, Knossel O, Theiler R. Efficacy and tolerability of oral avian chondroitin sulfate in painful knee osteoarthritis. *Schweiz Med Wochenschr* 1999;129(33):1174. (Abstract)
- Uebelhart D, Malaise M, Marcolongo R, et al. Intermittent treatment of knee osteoarthritis with oral chondroitin sulfate: a one-year, randomized, double-blind, multicenter study versus placebo. *Osteoarthritis Cartilage* 2004;12(4):269-276.
- Uebelhart D, Thonar EJ, Delmas PD, et al. Effects of oral chondroitin sulfate on the progression of knee osteoarthritis: a pilot study. *Osteoarthritis Cartilage* 1998;6(Suppl A):39-46.
- Uebelhart D, Thonar EJ, Zhang J, et al. Protective effect of exogenous chondroitin 4, 6-sulfate in the acute degradation of articular cartilage in the rabbit. *Osteoarthritis Cartilage* 1998;6(Suppl A):6-13.
- Uesaka S, Nakayama Y, Shirai Y, et al. Serum and synovial fluid levels of chondroitin sulfate in patients with osteoarthritis of the knee joint. *J Nippon Med Sch* 2001;68(2):165-170.
- Uesaka S, Nakayama Y, Yoshihara K, et al. Significance of chondroitin sulfate isomers in the synovial fluid of osteoarthritis patients. *J Orthop Sci* 2002;7(2):232-237.
- Ulrich-Vinther M, Maloney MD, Schwarz EM, et al. Articular cartilage biology. *J Am Acad Orthop Surg* 2003;11(6):421-430. (Review)
- Van Blitterswijk WJ, Van De Nes JC, Wuisman PI. Glucosamine and chondroitin sulfate supplementation to treat symptomatic disc degeneration: biochemical rationale and case report. *BMC Complement Altern Med* 2003;3(1):2.

Citations and Reference Literature: Chondroitin Sulfate

- Verbruggen G, Goemaere S, Veys EM. Chondroitin sulfate: S/DMOAD (structure/disease modifying anti-osteoarthritis drug) in the treatment of finger joint OA. *Osteoarthritis Cartilage* 1998;6(Suppl A):37-38.
- Verges J, Montell E, Herrero M, et al. [Clinical and histopathological improvement of psoriasis in patients with osteoarthritis treated with chondroitin sulfate: report of 3 cases.] *Med Clin (Barc)* 2004;123(19):739-742. [Spanish]
- Vieira VP, Rocha JB, Stefanello FM, et al. Heparin and chondroitin sulfate inhibit adenine nucleotide hydrolysis in liver and kidney membrane enriched fractions. *Int J Biochem Cell Biol* 2001;33(12):1193-1201.
- Villani P, Bouvenot G. [Assessment of the placebo effect of symptomatic slow-acting anti-arthritics.] *Presse Med* 1998;27(5):211-214. [French] (Review)
- Volpi N. Oral bioavailability of chondroitin sulfate (Condrosulf) and its constituents in healthy male volunteers. *Osteoarthritis Cartilage* 2002;10(10):768-777.
- Volpi N. The pathobiology of osteoarthritis and the rationale for using the chondroitin sulfate for its treatment. *Curr Drug Targets Immune Endocr Metabol Disord* 2004;4(2):119-127. (Review)
- Walden PD, Lefkowitz GK, Ficazzola M, et al. Identification of genes associated with stromal hyperplasia and glandular atrophy of the prostate by mRNA differential display. *Exp Cell Res* 1998;245(1):19-26.
- Walker-Bone K. 'Natural remedies' in the treatment of osteoarthritis. *Drugs Aging* 2003;20(7):517-526. (Review)
- Xiao W, Liu Y, Templeton DM. Ca²⁺/Calmodulin-dependent protein kinase-II inhibition by heparin in mesangial cells. *Am J Physiol Renal Physiol* 2005;288(1):F142-149.
- Zheng PS, Wen J, Ang LC, et al. Versican/PG-M G3 domain promotes tumor growth and angiogenesis. *FASEB J* 2004;18(6):754-756.