

References

Devil's Claw

- Newall CA, Anderson LA, Philpson JD. Herbal Medicine: A Guide for Healthcare Professionals. London, UK: The Pharmaceutical Press, 1996. **4**
- Wichtl MW. Herbal Drugs and Phytopharmaceuticals. Ed. N.M. Bisset. Stuttgart: Medpharm GmbH Scientific Publishers, 1994. **8**
- Brinker F. Herb Contraindications and Drug Interactions. 2nd ed. Sandy, OR: Eclectic Medical Publications, 1998. **19**
- Shaw D, Leon C, Kolev S, Murray V. Traditional remedies and food supplements: a 5-year toxicological study (1991-1995). *Drug Saf* 1997;17:342-56. [View abstract](#). **613**
- Krieger D, Krieger S, Jansen O, et al. Manganese and chronic hepatic encephalopathy. *Lancet* 1995;346:270-4. [View abstract](#). **2001**
- Fetrow CW, Avila JR. Professional's Handbook of Complementary & Alternative Medicines. 1st ed. Springhouse, PA: Springhouse Corp., 1999. **6002**
- Chantre P, Cappelaere A, Leblan D, et al. Efficacy and tolerance of Harpagophytum procumbens versus diacerhein in treatment of osteoarthritis. *Phytomedicine* 2000;7:177-83. [View abstract](#). **6472**
- Chrubasik S, Thanner J, Kunzel O, et al. Comparison of outcome measures during treatment with the proprietary Harpagophytum extract doloteffin in patients with pain in the lower back, knee or hip. *Phytomedicine* 2002;9:181-94. [View abstract](#). **8608**
- Circosta C, Occhiuto F, Ragusa S, et al. A drug used in traditional medicine: Harpagophytum procumbens DC. II. Cardiovascular activity. *J Ethnopharmacol* 1984;11:259-74. [View abstract](#). **8609**
- Costa De Pasquale R, Busa G, et al. A drug used in traditional medicine: Harpagophytum procumbens DC. III. Effects on hyperkinetic ventricular arrhythmias by reperfusion. *J Ethnopharmacol* 1985;13:193-9. [View abstract](#). **8610**
- Soulimani R, Younos C, Mortier F, Derrieu C. The role of stomachal digestion on the pharmacological activity of plant extracts, using as an example extracts of Harpagophytum procumbens. *Can J Physiol Pharmacol* 1994;72:1532-6. [View abstract](#). **8611**
- Chrubasik S, Sporer F, Dillmann-Marschner R, et al. Physicochemical properties of harpagoside and its in vitro release from Harpagophytum procumbens extract tablets. *Phytomedicine* 2000;6:469-73. [View abstract](#). **8612**
- Grahame R, Robinson BV. Devil's claw (Harpagophytum procumbens): pharmacological and clinical studies. *Ann Rheum Dis* 1981;40:632. [View abstract](#). **8613**
- Lanthers MC, Fleurentin J, Mortier F, et al. Anti-inflammatory and analgesic effects of an aqueous extract of Harpagophytum procumbens. *Planta Med* 1992;58:117-23. [View abstract](#). **8614**
- Baghdikian B, Lanthers MC, Fleurentin J, et al. An analytical study, anti-inflammatory and analgesic effects of Harpagophytum procumbens and Harpagophytum zeyheri. *Planta Med* 1997;63:171-6. [View abstract](#). **8615**
- 8616**

- Fiebich BL, Heinrich M, Hiller KO, Kammerer N. Inhibition of TNF-alpha synthesis in LPS-stimulated primary human monocytes by Harpagophytum extract SteiHap 69. *Phytomedicine* 2001;8:28-30.. [View abstract](#). **8617**
- Whitehouse LW, Znamirowska M, Paul CJ. Devil's Claw (*Harpagophytum procumbens*): no evidence for anti-inflammatory activity in the treatment of arthritic disease. *Can Med Assoc J* 1983;129:249-51. [View abstract](#). **10642**
- Moussard C, Alber D, Toubin MM, et al. A drug used in traditional medicine, harpagophytum procumbens: no evidence for NSAID-like effect on whole blood eicosanoid production in human. *Prostaglandins Leukot Essent Fatty Acids*. 1992;46:283-6.. [View abstract](#). **12477**
- Gagnier JJ, Chrubasik S, Manheimer E. Harpagophytum procumbens for osteoarthritis and low back pain: a systematic review. *BMC Complement Altern Med* 2004;4:13. [View abstract](#). **12478**
- Jang MH, Lim S, Han SM, et al. Harpagophytum procumbens suppresses lipopolysaccharide-stimulated expressions of cyclooxygenase-2 and inducible nitric oxide synthase in fibroblast cell line L929. *J Pharmacol Sci* 2003;93:367-71. [View abstract](#). **12479**
- Unger M, Frank A. Simultaneous determination of the inhibitory potency of herbal extracts on the activity of six major cytochrome P450 enzymes using liquid chromatography/mass spectrometry and automated online extraction. *Rapid Commun Mass Spectrom* 2004;18:2273-81. [View abstract](#). **14332**
- Wegener T, Lupke NP. Treatment of patients with arthrosis of hip or knee with an aqueous extract of devil's claw (*Harpagophytum procumbens* DC). *Phytother Res* 2003;17:1165-72. [View abstract](#). **14418**
- Chrubasik S, Kunzel O, Thanner J, et al. A 1-year follow-up after a pilot study with Doloteffin for low back pain. *Phytomedicine* 2005;12:1-9. [View abstract](#). **15259**
- Gagnier JJ, van Tulder MW, Berman B, Bombardier C. Herbal medicine for low back pain. A Cochrane review. *Spine* 2007;32:82-92. [View abstract](#). **17325**
- Romiti N, Tramonti G, Corti A, Chieli E. Effects of Devil's Claw (*Harpagophytum procumbens*) on the multidrug transporter ABCB1/P-glycoprotein. *Phytomedicine* 2009;16:1095-100. [View abstract](#). **35785**
- Ernst, E. and Chrubasik, S. Phyto-anti-inflammatories. A systematic review of randomized, placebo-controlled, double-blind trials. *Rheum.Dis Clin North Am* 2000;26(1):13-27, vii. [View abstract](#). **40237**
- Spelman, K., Burns, J., Nichols, D., Winters, N., Ottersberg, S., and Tenborg, M. Modulation of cytokine expression by traditional medicines: a review of herbal immunomodulators. *Altern.Med.Rev.* 2006;11(2):128-150. [View abstract](#). **40500**
- Gagnier, J. J., van Tulder, M., Berman, B., and Bombardier, C. Herbal medicine for low back pain. *Cochrane.Database.Syst.Rev.* 2006;(2):CD004504.[View abstract](#). **47112**
- Chrubasik, S., Junck, H., Breitschwerdt, H., Conradt, C., and Zappe, H. Effectiveness of Harpagophytum extract WS 1531 in the treatment of exacerbation of low back pain: a randomized, placebo-controlled, double-blind study. *Eur.J Anaesthesiol.* 1999;16(2):118-129. [View abstract](#). **47113**
- Baghdikian, B., Guiraud-Dauriac, H., Ollivier, E., N'Guyen, A., Dumenil, G., and Balansard, G. Formation of nitrogen-containing metabolites from the main iridoids of Harpagophytum

- procumbens and *H. zeyheri* by human intestinal bacteria. *Planta Med* 1999;65(2):164-166. [View abstract](#). **47114**
- Leblan, D., Chantre, P., and 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. [View abstract](#). **47115**
- Loew, D., Mollerfeld, J., Schrodter, A., Puttkammer, S., and Kaszkin, M. Investigations on the pharmacokinetic properties of *Harpagophytum* extracts and their effects on eicosanoid biosynthesis in vitro and ex vivo. *Clin.Pharmacol.Ther.* 2001;69(5):356-364. [View abstract](#). **47116**
- Laudahn, D. and Walper, A. Efficacy and tolerance of *Harpagophytum* extract LI 174 in patients with chronic non-radicular back pain. *Phytother.Res.* 2001;15(7):621-624. [View abstract](#). **47117**
- Gobel, H., Heinze, A., Ingwersen, M., Niederberger, U., and Gerber, D. [Effects of *Harpagophytum procumbens* LI 174 (devil's claw) on sensory, motor und vascular muscle reagibility in the treatment of unspecific back pain]. *Schmerz.* 2001;15(1):10-18. [View abstract](#). **47118**
- Munkombwe, N. M. Acetylated phenolic glycosides from *Harpagophytum procumbens*. *Phytochemistry* 2003;62(8):1231-1234. [View abstract](#). **47119**
- Betancor-Fernandez, A., Perez-Galvez, A., Sies, H., and Stahl, W. Screening pharmaceutical preparations containing extracts of turmeric rhizome, artichoke leaf, devil's claw root and garlic or salmon oil for antioxidant capacity. *J Pharm Pharmacol* 2003;55(7):981-986. [View abstract](#). **47120**
- Clarkson, C., Campbell, W. E., and Smith, P. In vitro antiplasmodial activity of abietane and totarane diterpenes isolated from *Harpagophytum procumbens* (devil's claw). *Planta Med* 2003;69(8):720-724. [View abstract](#). **47121**
- Boje, K., Lechtenberg, M., and Nahrstedt, A. New and known iridoid- and phenylethanoid glycosides from *Harpagophytum procumbens* and their in vitro inhibition of human leukocyte elastase. *Planta Med* 2003;69(9):820-825. [View abstract](#). **47122**
- Chrubasik, S., Conradt, C., and Roufogalis, B. D. Effectiveness of *Harpagophytum* extracts and clinical efficacy. *Phytother.Res.* 2004;18(2):187-189. [View abstract](#). **47123**
- Andersen, M. L., Santos, E. H., Seabra, Mde L., da Silva, A. A., and Tufik, S. Evaluation of acute and chronic treatments with *Harpagophytum procumbens* on Freund's adjuvant-induced arthritis in rats. *J Ethnopharmacol.* 2004;91(2-3):325-330. [View abstract](#). **47124**
- Schulze-Tanzil, G., Hansen, C., and Shakibaei, M. [Effect of a *Harpagophytum procumbens* DC extract on matrix metalloproteinases in human chondrocytes in vitro]. *Arzneimittelforschung.* 2004;54(4):213-220. [View abstract](#). **47125**
- Chrubasik, S. [Devil's claw extract as an example of the effectiveness of herbal analgesics]. *Orthopade* 2004;33(7):804-808. [View abstract](#). **47126**
- Na, H. K., Mossanda, K. S., Lee, J. Y., and Surh, Y. J. Inhibition of phorbol ester-induced COX-2 expression by some edible African plants. *Biofactors* 2004;21(1-4):149-153. [View abstract](#). **47127**
- Kaszkin, M., Beck, K. F., Koch, E., Erdelmeier, C., Kusch, S., Pfeilschifter, J., and Loew, D. Downregulation of iNOS expression in rat mesangial cells by special extracts of *Harpagophytum procumbens* derives from harpagoside-dependent and independent effects. *Phytomedicine.* 2004;11(7-8):585-595. [View abstract](#). **47128**
- Chrubasik, S. Addendum to the ESCOP monograph on *Harpagophytum procumbens*. *Phytomedicine.* 2004;11(7-8):691-695. [View abstract](#).

- 47129**
- Kundu, J. K., Mossanda, K. S., Na, H. K., and Surh, Y. J. Inhibitory effects of the extracts of *Sutherlandia frutescens* (L.) R. Br. and *Harpagophytum procumbens* DC. on phorbol ester-induced COX-2 expression in mouse skin: AP-1 and CREB as potential upstream targets. *Cancer Lett.* 1-31-2005;218(1):21-31. [View abstract.](#)
- 47130**
- Gunther, M., Laufer, S., and Schmidt, P. C. High anti-inflammatory activity of harpagoside-enriched extracts obtained from solvent-modified super- and subcritical carbon dioxide extractions of the roots of *Harpagophytum procumbens*. *Phytochem.Anal.* 2006;17(1):1-7. [View abstract.](#)
- 47131**
- Teut, M. and Warning, A. [Bone metastases in breast carcinoma]. *Forsch Komplement.Med* (2006.) 2006;13(1):46-48. [View abstract.](#)
- 47132**
- Ameye, L. G. and Chee, W. S. Osteoarthritis and nutrition. From nutraceuticals to functional foods: a systematic review of the scientific evidence. *Arthritis Res Ther* 2006;8(4):R127. [View abstract.](#)
- 47133**
- Grant, L., McBean, D. E., Fyfe, L., and Warnock, A. M. A review of the biological and potential therapeutic actions of *Harpagophytum procumbens*. *Phytother Res* 2007;21(3):199-209. [View abstract.](#)
- 47134**
- Brien, S., Lewith, G. T., and McGregor, G. Devil's Claw (*Harpagophytum procumbens*) as a treatment for osteoarthritis: a review of efficacy and safety. *J Altern Complement Med* 2006;12(10):981-993. [View abstract.](#)
- 47135**
- Erdos, A., Fontaine, R., Friehe, H., Durand, R., and Poppinghaus, T. [Contribution to the pharmacology and toxicology of different extracts as well as the harpagosid from *Harpagophytum procumbens* DC]. *Planta Med* 1978;34(1):97-108. [View abstract.](#)
- 47136**
- Occhiuto, F., Circosta, C., Ragusa, S., Ficarra, P., and Costa, De Pasquale. A drug used in traditional medicine: *Harpagophytum procumbens* DC. IV. Effects on some isolated muscle preparations. *J Ethnopharmacol.* 1985;13(2):201-208. [View abstract.](#)
- 47137**
- Eichler, O. and Koch, C. [Antiphlogistic, analgesic and spasmolytic effect of harpagoside, a glycoside from the root of *Harpagophytum procumbens* DC]. *Arzneimittelforschung.* 1970;20(1):107-109. [View abstract.](#)
- 47138**
- McLeod, D. W., Revell, P., and Robinson, B. V. Investigations of *Harpagophytum procumbens* (Devil's Claw) in the treatment of experimental inflammation and arthritis in the rat [proceedings]. *Br.J Pharmacol* 1979;66(1):140P-141P. [View abstract.](#)
- 47139**
- Fontaine, J., Elchami, A. A., Vanhaelen, M., and Vanhaelen-Fastre, R. [Biological analysis of *Harpagophytum procumbens* D.C. II. Pharmacological analysis of the effects of harpagoside, harpagide and harpagogenine on the isolated guinea-pig ileum (author's transl)]. *J Pharm Belg.* 1981;36(5):321-324. [View abstract.](#)
- 47140**
- Jadot G and Lecomte A. Activite anti-inflammatoire d'*Harpagophytum procumbens* DC. *Lyon Mediteranee Med Sud-Est* 1992;28:833-835.
- 47141**
- Benito PM, Lanza AM, Sen AM, and et al. Effects of Some Iridoids from Plant Origin on Arachidonic Acid Metabolism in Cellular Systems. *Planta Med* 2000;66(4):324-328.
- 47142**
- Chrubasik S and Eisenberg E. Treatment of rheumatic pain with Kampo medicine in Europe. *The Pain Clinic* 1999;11(3):171.
- 47143**

- Chrubasik S, Fiebich B, Black A, and et al. Treating low back pain with an extract of *Harpagophytum procumbens* that inhibits cytokine release. *Eur J Anaesthesiol* 2002;19:209. **47144**
- Belaiche P. Etude clinique de 630 cas d'arthrose traites par le nebulisat aqueux d'*Harpagophytum procumbens* (Radix). *Phytotherapy* 1982;1:22-28. **47145**
- Guyader M. Les plantes antirhumatismales. Etude historique et pharmacologique, et etude clinique du nebulisat d'*Harpagophytum procumbens* DC chez 50 patients arthrosiques suivis en service hospitalier [Dissertation]. Universite Pierre et Marie Curie, 1984. **47146**
- Lecomte A and Costa JP. *Harpagophytum* dans l'arthrose: Etude en double insu contre placebo. *Le Magazine* 1992;15:27-30. **47147**
- Pinget M and Lecompte A. Etude des effets de l'*harpagophytum* en rhumatologie dégénérative. *37 Le magazine* 1990;(10):1-10. **47148**
- Schrüffer H. Salus Teufelskralle-Tabletten. Ein Fortschritt in der nichtsteroidalen antirheumatischen Therapie. *Die Medizinische Publikation* 1980;1:1-8. **47149**
- Frerick H, Biller A, and Schmidt U. Stufenschema bei Coxarthrose. *Der Kassenarzt* 2001;5(34):41. **47150**
- Schmelz H, Haemmerle HD, and Springorum HW. Analgetische Wirksamkeit eines Teufelskrallenwurzel-Extraktes bei verschiedenen chronisch-degenerativen Gelenkerkrankungen. In: *Chrubasik S and Wink M. Rheumatherapie mit Phytopharmaka*. Stuttgart: Hippokrates;1997. **47151**
- Bhattacharya A and Bhattacharya SK. Anti-oxidative activity of *Harpagophytum procumbens*. *Br J Phytother* 1998;72:68-71. **47152**
- Langmead L, Dawson C, Hawkins C, and et al. Antioxidant effects of herbal therapies used by patients with inflammatory bowel disease: an in vitro study. *Aliment Pharmacol Ther* 2002;16(2):197-205. **47153**
- Chrubasik S, Sporer F, and Wink M. [Content of active substance in tea preparations from *Harpagophytum procumbens*]. *Forsch Komplementarmed* 1996;3:116-119. **47154**
- Chrubasik S, Sporer F, Wink M, and et al. Zum wirkstoffgehalt in arzneimitteln aus *harpagophytum procumbens*. *Forsch Komplementärmed* 1996;3:57-63. **47155**
- Chrubasik S, Zimpfer C, Schutt U, and et al. Effectiveness of *Harpagophytum procumbens* in treatment of acute low back pain. *Phytomedicine* 1996;3(1):1-10. **47156**
- Van Haelen M, van Haelen-Fastré R, Samaey-Fontaine J, and et al. Aspects botaniques, constitution chimique et activité pharmacologique d'*Harpagophytum procumbens*. *Phytotherapy* 1983;5:7-13. **47157**
- Zimmermann W. Pflanzliche Bitterstoffe in der Gastroenterologie. *Z Allgemeinmed* 1976;23:1178-1184. **47158**
- Kikuchi T. New iridoid glucosides from *Harpagophytum procumbens*. *Chem Pharm Bull* 1983;31:2296-2301. **47159**
- Tunmann P and Lux R. Zur Kenntnis der Inhaltsstoffe aus der Wurzel von *Harpagophytum procumbens* DC. *DAZ* 1962;102(40):1274-1275. **47160**
- Ficarra P, Ficarra R, Tommasini A, and et al. [HPLC analysis of a drug in traditional medicine: *Harpagophytum procumbens* DC. I]. *Boll Chim Farm* 1986;125(7):250-253.

- 47161**
- Tunmann P and Bauersfeld HJ. Über weitere Inhaltsstoffe der Wurzel von Harpagophytum procumbens DC. Arch Pharm (Weinheim) 1975;308(8):655-657.
- 47162**
- Loew D, Schuster O, and Möllerfeld J. Stabilität und biopharmazeutische Qualität. Voraussetzung für Bioverfügbarkeit von Harpagophytum procumbens. In: Loew D and Rietbrock N. Phytopharmaka II. Forschung und klinische Anwendung. Darmstadt: Forschung und klinische Anwendung;1996.
- 47163**
- Ribbat JM and Schakau D. Behandlung chronisch aktivierter Schmerzen am Bewegungsapparat. NaturaMed 2001;16:23-30.
- 47164**
- Pinget, M. and Lecomte, A. The effect of Harpagophytum Arkocaps in degenerative rheumatism [in German]. Naturheilpraxis 1997;50:267-269.
- 47165**
- Rutten, S. and Schafer, I. Einsatz der afrikanischen Teufelskralle [Allya] bei Erkrankungen des Stutz und Bewegungsapparates. Ergebnisse einer Anwendungsbeobachtung Acta Biol 2000;2:5-20.
- 47166**
- Usbeck, C. Teufelskralle: Devil claw: Treatment for chronic pain [in German]. Arzneimittel-Forum 2000;3:23-25.
- 47167**
- Schendel, U. Arthritis treatment: Study with Devil Claw extract [in German]. Der Kassenarzt 2001;29/30:2-5.
- 47168**
- Biller, A. Ergebnisse sweier randomisierter kontrollierter. Phyto-pharmaka 2002;7:86-88.
- 47169**
- Chrubasik S, Model A, Black A, and et al. A randomized double-blind pilot study comparing Doloteffin® and Vioxx® in the treatment of low back pain. Rheumatology 2003;42:141-148.
- 47170**
- Chrubasik S, Schmidt A, Junck H, and et al. [Effectiveness and economy of Harpagophytum extract in the treatment of acute low back pain - first results of a therapeutic cohort study]. Forsch Komplementarmed 1997;4:332-336.
- 47171**
- Chrubasik S, Sporer F, and Wink M. [Harpagoside content of different powdered dry extracts from Harpagophytum procumbens]. Forsch Komplmentarmed 1996;3:6-11.