

## Polymyalgia Rheumatica

### REFERENCES

- Abdel-Salam OM, Baiuomy AR, et al. The anti-inflammatory effects of the phosphodiesterase inhibitor pentoxifylline in the rat. *Pharmacol Res.* 2003 Apr;47(4):331–40.
- Adachi JD, Olszynski WP, et al. Management of corticosteroid-induced osteoporosis. *Semin Arthritis Rheum.* 2000a Feb;29(4):228–51.
- Adachi JD, Roux C, et al. A pooled data analysis on the use of intermittent cyclical etidronate therapy for the prevention and treatment of corticosteroid induced bone loss. *J Rheumatol.* 2000b Oct;27(10):2424–31.
- Aggarwal BB, Shishiodia S. Suppression of the nuclear factor-kappaB activation pathway by spice-derived phytochemicals: Reasoning for seasoning. *Ann N Y Acad Sci.* 2004 Dec;1030:434–41.
- Aksu K, Turgan N, et al. Hyperhomocysteinaemia in Behcet's disease. *Rheumatology (Oxford).* 2001 Jun;40(6):687–90.
- Barilla-LaBarca ML, Lenschow DJ, et al. Polymyalgia rheumatica/temporal arteritis: Recent advances. *Curr Rheumatol Rep.* 2002 Feb;4(1):39–46.
- Baumann B, Bohnenstengel F, et al. Rocaglamide derivatives are potent inhibitors of NF-kappa B activation in T-cells. *J Biol Chem.* 2002 Nov 22;277(47):44791–800.
- Beers MH, Berkow R, eds. *The Merck Manual of Diagnosis and Therapy.* 17th ed. Available at: <http://www.merck.com/mrkshared/mmanual/home.jsp>. Accessed March 15, 2006.
- Bern M. Observations on possible effects of daily vitamin K replacement, especially upon warfarin therapy. *J Parenter Enteral Nutr.* 2004 Nov-Dec;28(6):388–98.
- Bowie AG, O'Neill LA. Vitamin C inhibits NF-kappa B activation by TNF via the activation of p38 mitogen-activated protein kinase. *J Immunol.* 2000 Dec 15;165(12):7180–8.
- Brito J, Biamonti G, et al. Autoantibodies to human nuclear lamin B2 protein: Epitope specificity in different autoimmune diseases. *J Immunol.* 1994 Sep 1;153(5):2268–77.
- Calzado MA, Ludi KS, et al. Inhibition of NF-kappaB activation and expression of inflammatory mediators by polyacetylene spiroketals from *Plagus flosculosus*. *Biochim Biophys Acta.* 2005 Jun 30;1729(2):88–93.
- Cantini F, Niccoli L, et al. Are polymyalgia rheumatica and giant cell arteritis the same disease? *Semin Arthritis Rheum.* 2004 Apr;33(5):294–301.
- Caporali R, Cimmino MA, et al. Prednisone plus methotrexate for polymyalgia rheumatica: A randomized, double-blind, placebo-controlled trial. *Ann Intern Med.* 2004 Oct 5;141(7):493–500.
- Chang RW, Fineberg HV. Risk-benefit considerations in the management of polymyalgia rheumatica. *Med Decis Making.* 1983;3(4):459–75.
- Cimmino MA. Genetic and environmental factors in polymyalgia rheumatica. *Ann Rheum Dis.* 1997 Oct;56(10):576–7.
- Cutolo M, Foppiani L, et al. Hypothalamic-pituitary-adrenal axis impairment in the pathogenesis of rheumatoid arthritis and polymyalgia rheumatica. *J Endocrinol Invest.* 2002a;25(10 Suppl):19–23.
- Cutolo M, Straub RH, et al. Adrenal gland hypofunction in active polymyalgia rheumatica: Effect of glucocorticoid treatment on adrenal hormones and interleukin 6. *J Rheumatol.* 2002b Apr;29(4):748–56.

- Das UN. Nutrients, essential fatty acids and prostaglandins interact to augment immune responses and prevent genetic damage and cancer. *Nutrition*. 1989 Mar-Apr;5(2):106–10.
- de la Torre B, Fransson J, et al. Blood dehydroepiandrosterone sulphate (DHEAS) levels in pemphigoid/pemphigus and psoriasis. *Clin Exp Rheumatol*. 1995 May-Jun;13(3):345–8.
- Dolan AL, Moniz C, et al. Effects of inflammation and treatment on bone turnover and bone mass in polymyalgia rheumatica. *Arthritis Rheum*. 1997 Nov;40(11):2022–9.
- Dorazil-Dudzik M, Mika J, et al. The effects of local pentoxifylline and propentofylline treatment on formalin-induced pain and tumor necrosis factor-alpha messenger RNA levels in the inflamed tissue of the rat paw. *Anesth Analg*. 2004 Jun;98(6):1566–73.
- Eichbaum FW, Slemer O, et al. Anti-inflammatory effect of warfarin and vitamin K1. *Naunyn Schmiedebergs Arch Pharmacol*. 1979 Jun 18;307(2):185–90.
- Endres S, Ghorbani R, et al. The effect of dietary supplementation with n-3 polyunsaturated fatty acids on the synthesis of interleukin-1 and tumor necrosis factor by mononuclear cells. *N Engl J Med*. 1989 Feb 2;320(5):265–71.
- Ferraccioli GF, Di Poi E, et al. Steroid sparing therapeutic approaches to polymyalgia rheumatica-giant cell arteritis: State of the art and perspectives. *Clin Exp Rheumatol*. 2000 Jul-Aug;18(4 Suppl 20):S58–S60.
- Gennari R, Alexander JW. Arginine, glutamine, and dehydroepiandrosterone reverse the immunosuppressive effect of prednisone during gut-derived sepsis. *Crit Care Med*. 1997 Jul;25(7):1207–14.
- Gerster JC, So AK, et al. [Systemic corticosteroid therapy in rheumatology, advantages and risks]. *Schweiz Rundsch Med Prax*. 1998 Aug 12;87(33):1024–7.
- Gitlits VM, Macaulay SL, et al. Novel human autoantibodies to phosphoepitopes on mitotic chromosomal autoantigens (MCAs). *J Investig Med*. 2000 May;48(3):172–82.
- Gonzalez-Gay MA. Giant cell arteritis and polymyalgia rheumatica: Two different but often overlapping conditions. *Semin Arthritis Rheum*. 2004 Apr;33(5):289–93.
- Gonzalez-Gay MA, Amoli MM, et al. Genetic markers of disease susceptibility and severity in giant cell arteritis and polymyalgia rheumatica. *Semin Arthritis Rheum*. 2003 Aug;33(1):38–48.
- Graninger W, Wenisch C. Pentoxifylline in severe inflammatory response syndrome. *J Cardiovasc Pharmacol*. 1995;25 Suppl 2:S134–S138.
- Guthikonda S, Haynes WG. Homocysteine: Role and implications in atherosclerosis. *Curr Atheroscler Rep*. 2006 Mar;8(2):100–6.
- Hellmich B, Gross WL. [Polymyalgia rheumatica: Myalgic syndrome or occult vasculitis?] *Internist (Berl)*. 2005 Nov;46(11):1233–44.
- Ho LJ, Juan TY, et al. Plant alkaloid tetrandrine downregulates I kappa B alpha kinases-I kappa B alpha-NF-kappa B signaling pathway in human peripheral blood T cell. *Br J Pharmacol*. 2004 Dec;143(7):919–27.
- Honing ML, Bredie SJ, et al. [Aortic involvement in patients with temporal arteritis and polymyalgia rheumatica.] *Ned Tijdschr Geneeskd*. 2005 Aug 27;149(35):1947–53.
- Horvath K, Noker PE, et al. Toxicity of methylsulfonylmethane in rats. *Food Chem Toxicol*. 2002 Oct;40(10):1459–62.
- Ichikawa H, Takada Y, et al. Identification of a novel blocker of I kappa B alpha kinase that enhances cellular apoptosis and inhibits cellular invasion through suppression of NF-kappa B-regulated gene products. *J Immunol*. 2005 Jun 1;174(11):7383–92.
- Jobin C, Bradham CA, et al. Curcumin blocks cytokine-mediated NF-kappa B activation and proinflammatory gene expression by inhibiting inhibitory factor I-kappa B kinase activity. *J Immunol*. 1999 Sep 15;163(6):3474–83.
- Kelley DS. Modulation of human immune and inflammatory responses by dietary fatty acids. *Nutrition*. 2001 Jul-Aug;17(7–8):669–

- Kim LS, Axelrod LJ, et al. Efficacy of methylsulfonylmethane (MSM) in osteoarthritis pain of the knee: A pilot clinical trial. *Osteoarthritis Cartilage*. 2006 Mar;14(3):286–94.
- Labbe P, Hardouin P. Epidemiology and optimal management of polymyalgia rheumatica. *Drugs Aging*. 1998 Aug;13(2):109–18.
- Lin SL, Chiang WC, et al. The renoprotective potential of pentoxifylline in chronic kidney disease. *J Chin Med Assoc*. 2005 Mar;68(3):99–105.
- Lyss G, Schmidt TJ, et al. Helenalin, an anti-inflammatory sesquiterpene lactone from Arnica, selectively inhibits transcription factor NF-kappaB. *Biol Chem*. 1997 Sep;378(9):951–61.
- Majumdar S, Aggarwal BB. Methotrexate suppresses NF-kappaB activation through inhibition of IkappaBalpha phosphorylation and degradation. *J Immunol*. 2001 Sep 1;167(5):2911–20.
- Mandell GL. Cytokines, phagocytes, and pentoxifylline. *J Cardiovasc Pharmacol*. 1995;25 Suppl 2:S20–S22.
- Manna SK, Mukhopadhyay A, et al. Resveratrol suppresses TNF-induced activation of nuclear transcription factors NF-kappa B, activator protein-1, and apoptosis: Potential role of reactive oxygen intermediates and lipid peroxidation. *J Immunol*. 2000a Jun 15;164(12):6509–19.
- Manna SK, Sah NK, et al. Oleandrin suppresses activation of nuclear transcription factor-kappaB, activator protein-1, and c-Jun NH2-terminal kinase. *Cancer Res*. 2000b Jul 15;60(14):3838–47.
- McCarty MF. Interleukin-6 as a central mediator of cardiovascular risk associated with chronic inflammation, smoking, diabetes, and visceral obesity: Down-regulation with essential fatty acids, ethanol and pentoxifylline. *Med Hypotheses*. 1999 May;52(5):465–77.
- McGonagle D, Pease C, et al. Comparison of extracapsular changes by magnetic resonance imaging in patients with rheumatoid arthritis and polymyalgia rheumatica. *J Rheumatol*. 2001 Aug;28(8):1837–41.
- Meliconi R, Pulsatelli L, et al. Leukocyte infiltration in synovial tissue from the shoulder of patients with polymyalgia rheumatica: Quantitative analysis and influence of corticosteroid treatment. *Arthritis Rheum*. 1996 Jul;39(7):1199–207.
- Meno-Tetang GM, Blum RA, et al. Effects of oral prasterone (dehydroepiandrosterone) on single-dose pharmacokinetics of oral prednisone and cortisol suppression in normal women. *J Clin Pharmacol*. 2001 Nov;41(11):195–205.
- Meyer O, Nicaise P, et al. Antibodies to cardiolipin and beta 2 glycoprotein I in patients with polymyalgia rheumatica and giant cell arteritis. *Rev Rhum Engl Ed*. 1996 Apr;63(4):241–7.
- Migliore A, Massafra U, et al. TNF-alpha blockade induce clinical remission in patients affected by polymyalgia rheumatica associated to diabetes mellitus and/or osteoporosis: A seven cases report. *Eur Rev Med Pharmacol Sci*. 2005 Nov-Dec;9(6):373–8.
- Narvaez J, Narvaez JA, et al. Giant cell arteritis and polymyalgia rheumatica: Usefulness of vascular magnetic resonance imaging studies in the diagnosis of aortitis. *Rheumatology (Oxford)*. 2005 Apr;44(4):479–83.
- Neuner P, Klosner G, et al. Pentoxifylline in vivo down-regulates the release of IL-1 beta, IL-6, IL-8 and tumour necrosis factor-alpha by human peripheral blood mononuclear cells. *Immunology*. 1994 Oct;83(2):262–7.
- Nilsson E, de la Torre B, et al. Blood dehydroepiandrosterone sulphate (DHEAS) levels in polymyalgia rheumatica/giant cell arteritis and primary fibromyalgia. *Clin Exp Rheumatol*. 1994 Jul-Aug;12(4):415–7.
- Parcell S. Sulfur in human nutrition and applications in medicine. *Altern Med Rev*. 2002 Feb;7(1):22–44.
- Pavlica P, Barozzi L, et al. Magnetic resonance imaging in the diagnosis of PMR. *Clin Exp Rheumatol*. 2000 Jul-Aug;18(4 Suppl 20):S38–9.
- Petri MA, Lahita RG, et al. Effects of prasterone on corticosteroid requirements of women with systemic lupus erythematosus: A double-blind, randomized, placebo-controlled trial. *Arthritis Rheum*. 2002 Jul;46(7):1820–9.

- Pollice PF, Rosier RN, et al. Oral pentoxifylline inhibits release of tumor necrosis factor-alpha from human peripheral blood monocytes: A potential treatment for aseptic loosening of total joint components. *J Bone Joint Surg Am*. 2001 Jul;83-A(7):1057-61.
- Reginster JY, Lecart MP, et al. Importance of alfacalcidol in clinical conditions characterized by high rate of bone loss. *J Rheumatol Suppl*. 2005 Sep;76:21-5.
- Richmond VL. Incorporation of methylsulfonylmethane sulfur into guinea pig serum proteins. *Life Sci*. 1986 Jul 21;39(3):263-8.
- Richy F, Schacht E, et al. Vitamin D analogs versus native vitamin D in preventing bone loss and osteoporosis-related fractures: A comparative meta-analysis. *Calcif Tissue Int*. 2005 Mar;76(3):176-86.
- Riehemann K, Behnke B, et al. Plant extracts from stinging nettle (*Urtica dioica*), an antirheumatic remedy, inhibit the proinflammatory transcription factor NF-kappaB. *FEBS Lett*. 1999 Jan 8;442(1):89-94.
- Salvarani C, Cantini F, et al. Proximal bursitis in active polymyalgia rheumatica. *Ann Intern Med*. 1997 Jul 1;127(1):27-31.
- Salvarani C, Cantini F, et al. Treatment of refractory polymyalgia rheumatica with infliximab: A pilot study. *J Rheumatol*. 2003 Apr;30(4):760-3.
- Salvarani C, Cantini F, et al. Polymyalgia rheumatica. *Best Pract Res Clin Rheumatol*. 2004 Oct;18(5):705-22.
- Samanta A, Kendall J. A fresh look at polymyalgia rheumatica. *Rheumatology (Oxford)*. 2002 Dec;41(12):1455-6.
- Schmits R, Kubuschok B, et al. Analysis of the B cell repertoire against autoantigens in patients with giant cell arteritis and polymyalgia rheumatica. *Clin Exp Immunol*. 2002 Feb;127(2):379-85.
- Shibanuma M, Kuroki T, et al. Inhibition by N-acetyl-L-cysteine of interleukin-6 mRNA induction and activation of NF kappa B by tumor necrosis factor alpha in a mouse fibroblastic cell line, Balb/3T3. *FEBS Lett*. 1994 Oct 10;353(1):62-6.
- Simopoulos AP. Essential fatty acids in health and chronic disease. *Am J Clin Nutr*. 1999 Sep;70(3 Suppl):560S-569S.
- Simopoulos AP. Omega-3 fatty acids in inflammation and autoimmune diseases. *J Am Coll Nutr*. 2002 Dec;21(6):495-505.
- Singh U, Devaraj S, et al. Vitamin E, oxidative stress, and inflammation. *Annu Rev Nutr*. 2005;25:151-74.
- Straub RH, Gluck T, et al. The adrenal steroid status in relation to inflammatory cytokines (interleukin-6 and tumour necrosis factor) in polymyalgia rheumatica. *Rheumatology (Oxford)*. 2000a Jun;39(6):624-31.
- Straub RH, Konecna L, et al. Serum dehydroepiandrosterone (DHEA) and DHEA sulfate are negatively correlated with serum interleukin-6 (IL-6), and DHEA inhibits IL-6 secretion from mononuclear cells in man in vitro: Possible link between endocrinosenescence and immunosenescence. *J Clin Endocrinol Metab*. 1998 Jun;83(6):2012-7.
- Straub RH, Scholmerich J, et al. Replacement therapy with DHEA plus corticosteroids in patients with chronic inflammatory diseases: Substitutes of adrenal and sex hormones. *Z Rheumatol*. 2000b;59 Suppl 2:II/108-18.
- Sunder-Plassmann G, Winkelmayr WC, et al. Therapeutic potential of total homocysteine-lowering drugs on cardiovascular disease. *Expert Opin Investig Drugs*. 2000 Nov;9(11):2637-51.
- Tidow-Kebritchi S, Mobarhan S. Effects of diets containing fish oil and vitamin E on rheumatoid arthritis. *Nutr Rev*. 2001 Oct;59(10):335-8.
- Tortora GJ, Grabowski SR. *Principles of Anatomy and Physiology*. 10th ed. New York: John Wiley & Sons, Inc.; 2003.
- Turbin RE, Kupersmith MJ. Giant cell arteritis. *Curr Treat Options Neurol*. 1999 Mar;1(1):49-56.
- Venkatraman JT, Chu WC. Effects of dietary omega3 and omega6 lipids and vitamin E on proliferative response, lymphoid cell subsets, production of cytokines by spleen cells, and splenic protein levels for cytokines and oncogenes in MRL/MpJ-lpr/lpr mice. *J Nutr Biochem*. 1999a Oct;10(10):582-97.

Venkatraman JT, Chu WC. Effects of dietary omega-3 and omega-6 lipids and vitamin E on serum cytokines, lipid mediators and anti-DNA antibodies in a mouse model for rheumatoid arthritis. *J Am Coll Nutr.* 1999b Dec;18(6):602–13.

Villareal DT, Holloszy JO, et al. Effects of DHEA replacement on bone mineral density and body composition in elderly women and men. *Clin Endocrinol (Oxf).* 2000 Nov;53(5):561–8.

Whan HJ, Gon LB, et al. Ergolide, sesquiterpene lactone from *Inula britannica*, inhibits inducible nitric oxide synthase and cyclo-oxygenase-2 expression in RAW 264.7 macrophages through the inactivation of NF-kappaB. *Br J Pharmacol.* 2001 Jun;133(4):503–12.

Weyand CM, Goronzy JJ. Giant-cell arteritis and polymyalgia rheumatica. *Ann Intern Med.* 2003 Sep 16;139(6):505–15.

Weyand CM, Ma-Krupa W, et al. Immunopathways in giant cell arteritis and polymyalgia rheumatica. *Autoimmun Rev.* 2004 Jan;3(1):46–53.

Yadav VS, Mishra KP, et al. Immunomodulatory effects of curcumin. *Immunopharmacol Immunotoxicol.* 2005;27(3):485–97.

Zlonis M. The mystique of the erythrocyte sedimentation rate: A reappraisal of one of the oldest laboratory tests still in use. *Clin Lab Med.* 1993 Dec;13(4):787–800.

All Contents Copyright © 1995-2009 Life Extension Foundation All rights reserved.

**LifeExtension®**

These statements have not been evaluated by the FDA. These products are not intended to diagnose, treat, cure or prevent any disease. The information provided on this site is for informational purposes only and is not intended as a substitute for advice from your physician or other health care professional or any information contained on or in any product label or packaging. You should not use the information on this site for diagnosis or treatment of any health problem or for prescription of any medication or other treatment. You should consult with a healthcare professional before starting any diet, exercise or supplementation program, before taking any medication, or if you have or suspect you might have a health problem. You should not stop taking any medication without first consulting your physician.