



Publication List

Version: November 2012

AGE Reader Key Publications

- **Skin autofluorescence provides additional information to the UK Prospective Diabetes Study (UKPDS) risk score for the estimation of cardiovascular prognosis in type 2 diabetes mellitus.**
Lutgers H. et al, Diabetologia, 2009; 52(5): 789-797
- **Skin autofluorescence and risk of micro- and macrovascular complications in patients with Type 2 diabetes mellitus-a multi-centre study.**
Noordzij M.J. et al. Diabet Med. 2012 Dec;29(12):1556-61.
- **Skin Autofluorescence and the Association with Renal and Cardiovascular Risk Factors in Chronic Kidney Disease Stage 3.**
McIntyre N. et al. Clin J Am Soc Nephrol. 2011 Sep 1. Epub
- **Skin-Autofluorescence Is an Independent Predictor of Graft Loss in Renal Transplant Recipients.**
Hartog J. et al. Transplantation, Volume 87, Number 7, April 15, 2009
- **Simple non-invasive assessment of advanced glycation endproducts accumulation.**
Meerwaldt R et al, Diabetologia, 2004; 47:1324-1330

AGE Reader in diabetes

- 1) **Advanced Glycation End Products, Measured as Skin Autofluorescence, During Normal Pregnancy and Pregnancy Complicated by Diabetes Mellitus.**
de Ranitz-Greven WL. et al. Diabetes Technol Ther. 2012 Oct 31. (Epub)
- 2) **Skin autofluorescence measurement in diabetological and nephrological clinical practice.**
Mácsai E. et al. Orv Hetil. 2012 Oct 21;153(42):1651-7.
- 3) **Skin autofluorescence and risk of micro- and macrovascular complications in patients with Type 2 diabetes mellitus-a multi-centre study.**
Noordzij M.J. et al. Diabet Med. 2012 Aug 31. doi: 10.1111/dme.12005.
- 4) **Advanced glycation end products measured by skin autofluorescence in a population with central obesity.**
den Engelsen C. et al. Dermatoendocrinol. 2012 Jan 1;4(1):33-8.
- 5) **Elevated skin autofluorescence is strongly associated with foot ulcers in patients with diabetes: a cross-sectional, observational study of Chinese subjects.**
Hu H. et al. J Zhejiang Univ Sci B. 2012 May;13(5):372-7.
- 6) **Advanced Glycation Endproducts and Diabetic Cardiovascular Disease.**
Prasad A. et al. Cardiol Rev. 2012 Feb 6. Epub
- 7) **Non-invasive measures of tissue autofluorescence are increased in Type 1 diabetes complications and correlate with a non-invasive measure of vascular dysfunction.**
Januszewski A.S. et al. Diabet Med. 2011 Dec 28. doi: 10.1111/j.1464-5491.2011.03562.x.
- 8) **Skin autofluorescence is associated with severity of vascular complications in Japanese patients with Type 2 diabetes.** Tanaka K. et al. Diabet Med. 2011 Sep 14. Epub
- 9) **Skin autofluorescence is inversely related to HDL anti-oxidative capacity in type 2 diabetes mellitus.**
Mulder D. et al. Atherosclerosis. 2011 May, Epub
- 10) **Advanced Glycation End Products, Measured as Skin Autofluorescence, at Diagnosis in Gestational Diabetes Mellitus Compared with Normal Pregnancy.**
de Ranitz-Greven WL et al. Diabetes Technol Ther. 2011 Aug 29. Epub
- 11) **Increased accumulation of skin advanced glycation end products is associated with microvascular complications in type 1 diabetes.**
Araszkievicz A. et al. Diabetes Technol Ther. 2011 Aug;13(8):837-42.
- 12) **Assessment of skin autofluorescence as a marker of advanced glycation end product accumulation in type 1 diabetes.**
Samborski P. et al. Pol Arch Med Wewn. 2011 Mar;121(3):67-72.
- 13) **Advanced glycation end products, measured as skin autofluorescence and diabetes complications: a systematic review.**
Bos D.C. et al. Diabetes Technol Ther. 2011 Jul;13(7):773-9.
- 14) **Tissue advanced glycation end products are associated with diastolic function and aerobic exercise capacity in diabetic heart failure patients.**
Willemsen S. et al. Eur J. Heart Fail 2010. doi:10.1093/eurjhf/hfq168
- 15) **Skin autofluorescence and glycemic variability.**
Noordzij M. et al. Diabetes Technol Ther. 2010; 12(7): 581-585
- 16) **Advanced glycation end products assessed by skin autofluorescence in type 1 diabetics are associated with nephropathy, but not retinopathy.**
Chabroux S. et al: Diabetes Metab, 2010 Apr;36(2):152-7.
- 17) **Skin autofluorescence provides additional information to the UK Prospective Diabetes Study (UKPDS) risk score for the estimation of cardiovascular prognosis in type 2 diabetes mellitus**
Lutgers H. et al: Diabetologia, 2009; 52(5): 789-797

- 18) Skin Autofluorescence: A tool to identify type 2 diabetic patients at risk for developing microvascular disease.**
Gerrits E. et al. Diabetes Care. 2008; 31: 517-521
 - 19) Skin autofluorescence is a strong predictor of cardiac mortality in diabetes**
Meerwaldt R, et al. Diabetes Care 2007, 30: 107-112
 - 20) Skin autofluorescence in type 2 diabetes: Beyond blood glucose**
Monami M. et al. Diabetes Research & Clinical Practice July 2007. epub
 - 21) Non-invasive AGE-measurements by skin autofluorescence in patients with Type 2 Diabetes Mellitus. Tool for risk-assessment of diabetes complications?**
Lutgers H, et al. Diabetes Care. 2006 Dec;29(12):2654-9
 - 22) Increased accumulation of skin advanced glycation end-products precedes and correlates with clinical manifestation of diabetic neuropathy**
Meerwaldt R, et al. Diabetologia. 2005;48:1637-44.
 - 23) The clinical relevance of advanced glycation endproducts (AGE) and recent developments in pharmaceuticals to reduce AGE accumulation.**
Smit AJ, Lutgers HL. Curr Med Chem. 2004 Oct;11(20):2767-84.
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AGE Reader in cardiovascular disease

- 1) **Skin Autofluorescence as a Measure of Advanced Glycation End Product Deposition Is Elevated in Peripheral Artery Disease.**
de Vos L.C. et al. *Arterioscler Thromb Vasc Biol.* 2012 Nov 8. (Epub)
 - 2) **Relationship between tissue glycation measured by autofluorescence and pulse wave velocity in young and elderly non-diabetic populations.**
Watfa G. et al. *Diabetes Metab.* 2012 Jun 13.
 - 3) **Advanced glycation end product associated skin autofluorescence: A mirror of vascular function?**
Hofmann B. et al. *Exp Gerontol.* 2012 May 12.
 - 4) **Effects of alagebrium, an advanced glycation endproduct breaker, on exercise tolerance and cardiac function in patients with chronic heart failure.**
Hartog J.W. et al. *BENEFICIAL investigators. Eur J Heart Fail.* 2011 Aug;13(8):899-908.
 - 5) **Skin autofluorescence is increased in patients with carotid artery stenosis and peripheral artery disease.**
Noordzij MJ. *Int J Cardiovasc Imaging.* 2011 Feb. Epub
 - 6) **Carotid artery intima media thickness associates with skin autofluorescence in non-diabetic subjects without clinically manifest cardiovascular disease.**
Lutgers H. et al. *Eur J Clin Invest.* 2010 ;40(9):812-7
 - 7) **Advanced glycation end-products, anti-hypertensive treatment and diastolic function in patients with hypertension and diastolic dysfunction.**
Hartog J. et al; *Eur. Journal of Heart Failure*, 2010 Apr;12(4):397-403
 - 8) **Advanced glycation end products in patients with cerebral infarction.**
Ohnuki Y. *Intern Med.* 2009;48(8):587-91.
 - 9) **Advanced Glycation End Products and their receptor RAGE in systemic autoimmune diseases - an inflammation propagating factor contributing to accelerated atherosclerosis.**
Nienhuis et al. *Autoimmunity*, 2009; 42(4): 302-304
 - 10) **Skin autofluorescence is elevated in acute myocardial infarction and is associated with the one-year incidence of major adverse cardiac events**
Mulder D. et al, *Netherlands Heart Journal*, Volume 17, Number 4, April 2009
 - 11) **Relation between food and drinking habits, and skin autofluorescence and intima media thickness in subjects at high cardiovascular risk**
Jochemsen M. et al: *Journal of Food and Nutrition Research* Vol. 48, 2009, No. 1, pp. 51–58
 - 12) **Advanced Glycation Endproducts (AGE) in chronic heart failure**
Smit A. et al. *Annals of New York Academy of Science* 2008; 1126:225-30
 - 13) **Clinical relevance of Advanced Glycation Endproducts for vascular surgery**
Meerwaldt R. et al. *Eur J Vasc Endovasc Surg.* 2008; 38,125-131
 - 14) **Skin autofluorescence is elevated in patients with stable coronary artery disease and is associated with serum levels of neopterin and the soluble receptor for advanced glycation end products.**
Mulder DJ. et al. *Atherosclerosis.* 2007;197:217-223
 - 15) **Clinical and prognostic value of Advanced Glycation End-products (AGEs) in chronic heart failure.**
Hartog J. et al *Eur J Heart Failure* 2007;9:1146-55
 - 16) **Skin Autofluorescence is an independent marker for Acute Myocardial Infarction**
Mulder DJ, et al. *Circulation*: 2005; 112:II-371.
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AGE Reader in renal disease

- 1) **Accumulation of tissue advanced glycation end products correlated with glucose exposure dose and associated with cardiovascular morbidity in patients on peritoneal dialysis.**
Jiang J. et al. *Atherosclerosis*. 2012 Sep;224(1):187-94.
- 2) **Skin autofluorescence as a marker of cardiovascular risk in children with chronic kidney disease.**
Makulska I. et al. *Pediatr Nephrol*. 2012 Sep 15. (Epub)
- 3) **Factors influencing skin autofluorescence of patients with peritoneal dialysis.**
Mácsai E. et al. *Acta Physiol Hung*. 2012 Jun;99(2):216-22.
- 4) **Decreased serum carnitine is independently correlated with increased tissue accumulation levels of advanced glycation end products in hemodialysis patients.**
Adachi T. et al. *Nephrology (Carlton)*. 2012 Jul 13. doi: 10.1111/j.1440-1797.2012.01642.x.
- 5) **Skin Autofluorescence: A Pronounced Marker of Mortality in Hemodialysis Patients.**
Gerrits E. et al. *Nephron Extra*. 2012 Jan;2(1):184-191.
- 6) **Advanced oxidation protein products and advanced glycation end products in children and adolescents with chronic renal insufficiency.**
Sebeková K. *J Ren Nutr*. 2012 Jan;22(1):143-8.
- 7) **Evaluation of advanced glycation end products accumulation, using skin autofluorescence, in CKD and dialysis patients.** Oleniuc M. et al. *Int Urol Nephrol*. 2011 Oct;44(5):1441-9.
- 8) **Skin autofluorescence and the association with renal and cardiovascular risk factors in chronic kidney disease stage 3.**
McIntyre N.J. et al. *Clin J Am Soc Nephrol*. 2011 Oct;6(10):2356-63.
- 9) **Tissue level of advanced glycation end products is an independent determinant of high-sensitivity C-reactive protein levels in haemodialysis patients.**
Nagano M. et al. *Nephrology (Carlton)*. 2011 Mar;16(3):299-303
- 10) **Skin autofluorescence as a measure of advanced glycation endproduct deposition: a novel risk marker in chronic kidney disease.**
Smit AJ. et al. *Curr Opin Nephrol Hypertens*, 2010; 19(6):527-33.
- 11) **Skin autofluorescence is associated with renal function and cardiovascular diseases in pre-dialysis chronic kidney disease patients.**
Tanaka K. et al. *Nephrol Dial Transplant*. doi: 10.1093/ndt/gfq369
- 12) **Advanced glycation end products, carotid atherosclerosis, and circulating endothelial progenitor cells in patients with end-stage renal disease.**
Ueno H et al. *Metabolism*, 2010, doi: 10.1016/j.metabol.2010.04.001
- 13) **Tissue-Advanced Glycation End Product Concentration in Dialysis Patients**
McIntyre et al; *CJASN*, 2010; 5(1): 51-55
- 14) **Does hepatitis C increase the accumulation of advanced glycation end products in haemodialysis patients?**
Arsov S. et al. *Nephrol Dial Transplant* 2009; 25(3): 885-891
- 15) **Skin-Autofluorescence Is an Independent Predictor of Graft Loss in Renal Transplant Recipients**
Hartog J. et al, *Transplantation* • Volume 87, Number 7, April 15, 2009
- 16) **Advanced Glycation End Products in Renal Failure: An Overview**
Noordzij M. et al, *Journal of Renal Care* 2008
- 17) **AGEs, autofluorescence and renal failure**
Gerrits E. et al. *Nephrology Dialysis and Transplantation* November 25, 2008
- 18) **Skin autofluorescence, a marker for advanced glycation end product accumulation, is associated with arterial stiffness in patients with end-stage renal disease**
Ueno H. et al: *Metabolism Clinical and Experimental* 57 (2008) 1452–1457

- 19) Skin Autofluorescence, a measure of tissue advanced glycation endproducts (AGEs), is related to the diastolic function of dialysis patients**
Hartog J. et al. Journal of Cardiac Failure. 2008; 14(7): 596-602
 - 20) Risk factors for chronic transplant dysfunction and cardiovascular disease are related to accumulation of advanced glycation end-products in renal transplant recipients**
Hartog JWL, et al. Nephrol Dial Transpl 2006 Aug;21(8):2263-9
 - 21) Skin autofluorescence, a measure of cumulative metabolic stress and advanced glycation endproducts, predicts mortality in hemodialysis patients**
Meerwaldt R, et al. J Am Soc Nephrol 2005;16:3687-93.
 - 22) Skin autofluorescence, a noninvasive measure of advanced glycation end product accumulation, is a predictor of mortality in hemodialysis patients**
Meerwaldt R, et al. Ann N Y Acad Sci 2005;1043:911.
 - 23) Accumulation of advanced glycation end products, measured as skin autofluorescence, in renal disease.**
Hartog JW. et al. Ann N Y Acad Sci. 2005 Jun;1043:299-307.
 - 24) Advanced glycation endproducts in kidney transplant patients: a putative role in the development of chronic renal transplant dysfunction**
Hartog J. et al. Am J Kidn Dis 2004; 43:966-975
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AGE Reader in other diseases

- 1) **Vascular Aspects of Fabry Disease in Relation to Clinical Manifestations and Elevations in Plasma Globotriaosylsphingosine.**
Rombach S.M. et al. Hypertension. 2012 Aug 6. (Epub)
 - 2) **Advanced Glycation Endproducts are increased in RA patients with controlled disease.**
de Groot L. et al. Arthritis Res Ther. 2011 Dec 14;13(6):R205.
 - 3) **Increased skin autofluorescence after colorectal operation reflects surgical stress and postoperative outcome.**
Pol H.W. et al. Am J Surg. 2011 Nov;202(5):583-9.
 - 4) **Skin autofluorescence, as marker of accumulation of advanced glycation endproducts and of cumulative metabolic stress, is not increased in patients with systemic sclerosis.**
Hetteema M.E. et al. Int J Rheumatol. 2011. Epub
 - 5) **Skin advanced glycation end-product accumulation is negatively associated with calcaneal osteo-sono assessment index among non-diabetic adult Japanese men.**
Momma H. Osteoporos Int. 2011 Sep 8. Epub
 - 6) **Skin autofluorescence is high in patients with cirrhosis - further arguing for the implication of Advanced Glycation End products.**
Maury E. et al. J Hepatol. 2011 May;54(5):1079-80.
 - 7) **Skin advanced glycation end product accumulation and muscle strength among adult men.**
Momma H. et al; Eur J Appl Physiol. 2010 (Epub)
 - 8) **Skin Autofluorescence as Marker of Tissue Advanced Glycation End-Products Accumulation in Formerly Preeclamptic Women.**
Coffeng S.M. et al. Hypertens Pregnancy; 2010, Epub
 - 9) **Accumulation of advanced glycation end (AGEs) products in intensive care patients: an observational, prospective study.**
Greven W. et al. BMC Clinical Pathology; 2010: 10 (4)
 - 10) **Increased accumulation of advanced glycation endproducts in patients with Wegener's granulomatosis.**
Leeuw de K et al. Ann Rheum Dis. 2009; 69(3): 625-U191
 - 11) **Skin autofluorescence is increased in systemic lupus erythematosus but not reflected by plasma levels advanced glycation endproducts**
Nienhuis H. et al: Rheumatology. 2008; 47(10): 1554-1558
 - 12) **Skin autofluorescence is increased in systemic lupus erythematosus but not reflected by plasma levels of advanced glycation endproducts**
Nienhuis H. et al. Rheumatology; 2008; 47(10): 1554-1558
 - 13) **Advanced glycation end products and the absence of premature atherosclerosis in glycogen storage disease Ia**
den Hollander NC. et al. J Inherit Metab Dis. 2007. epub ahead of print
 - 14) **Accumulation of advanced glycation endproducts in patients with systemic lupus erythematosus.**
de Leeuw K. et al. Rheumatol 2007;45:1551-1556.
 - 15) **Skin autofluorescence, a marker of advanced glycation end products and oxidative stress, is increased in recently preclamptic women**
Blaauw J. et al. Am J Obstet Gynecol. 2006 Sep;195(3):717-22.
 - 16) **Enhanced skin autofluorescence as a marker for oxidative stress in sepsis, a pilot study.**
Mulder DJ, et al. Eur Soc Intensive Care Medicine 2004
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AGE Reader (technical) validation

- 1) **Reference values for the Chinese population of skin autofluorescence as a marker of advanced glycation end products accumulated in tissue.**
Yue X. et al. Diabet Med. 2011 Jul;28(7):818-23.
 - 2) **Dermal factors influencing measurement of skin autofluorescence.**
Noordzij M.J. et al. Diabetes Technol Ther. 2011 Feb;13(2):165-70
 - 3) **Skin color independent assessment of aging using skin autofluorescence**
Koetsier M. et al. Optics Express, 2010 ;18(14):14416-29
 - 4) **Reference Values of Skin Autofluorescence.**
Koetsier M. et al. Diabetes Technology & Therapeutics 2010; 12(5):399-403
 - 5) **Skin autofluorescence for the risk assessment of chronic complications in diabetes: a broad excitation range is sufficient**
Koetsier M. et al: Optics Express. 2009; 17(2): 509-519
 - 6) **Skin autofluorescence increases postprandially in human subjects**
Stirban A. et al. Diabetes Technology & Therapeutics 2008: 10:200-5
 - 7) **The Effect of Aggressive Versus Conventional Lipid-lowering Therapy on Markers of Inflammatory and Oxidative Stress.**
Mulder DJ. et al. Cardiovasc Drugs Ther. 2007 Apr;21(2):91-7.
 - 8) **Skin Autofluorescence, a Novel Marker for Glycation and Oxidative Stress derived Advanced Glycation Endproducts. An Overview of Current Clinical Studies, Evidence and Limitations**
Mulder DJ, et al. Diabetes Technology and Therapeutics 2006; 8:523-535.
 - 9) **Simple noninvasive measurement of skin autofluorescence**
Meerwaldt R, et al. Ann N Y Acad Sci. 2005;1043:290-298.
 - 10) **Instrumentation for the measurement of Autofluorescence in the human skin**
Graaff R et al. Proc. of SPIE Vol. 5692 (SPIE, Bellingham, WA, 2005). pp. 111-118.
 - 11) **Simple non-invasive assessment of advanced glycation endproducts accumulation**
Meerwaldt R et al. Diabetologia 2004; 47:1324-1330
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