

AGE Reader Key Publications

- **Lifestyle and clinical determinants of skin autofluorescence in a population-based cohort study.**
van Waateringe R. et al. Eur J Clin Invest. 2016 Mar 22. Epub.
- **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: A tool to identify type 2 diabetic patients at risk for developing microvascular disease.**
Gerrits E. et al. Diabetes Care. 2008; 31: 517-521
- **Messung der Autofluoreszenz der Haut.**
Stirban A. and Heinemann L. Diabetes Stoffw Herz. 2013; 22 (full text available)
- **Skin Autofluorescence Is Associated With 5-Year Mortality and Cardiovascular Events in Patients With Peripheral Artery Disease.**
de Vos LC. et al. Arterioscler Thromb Vasc Biol. 2014 Feb 13.
- **Simple non-invasive assessment of advanced glycation endproducts accumulation.**
Meerwaldt R et al, Diabetologia, 2004; 47:1324-1330

AGE Reader in diabetes

1. **Skin autofluorescence is increased in young people with type 1 diabetes exposed to secondhand smoking.**
Vollenbrock CE. et al. J Diabetes. 2016 Oct 27. (Epub).
2. **Higher skin autofluorescence in young people with Type 1 diabetes and microvascular complications.**
Cho YH. et al. Diabet Med. 2016 Oct 22. (Epub)
3. **Advanced glycation end products is a risk for muscle weakness in Japanese patients with type 1 diabetes.**
Mori H. et al. J Diabetes Investig. 2016 Oct 11. (Epub) (FULL TEXT available)
4. **Skin Autofluorescence is Associated with Early-stage Atherosclerosis in Patients with Type 1 Diabetes.**
Osawa S et al. J Atheroscler Thromb. 2016 Sep 2.
5. **Skin autofluorescence predicts cardio-renal outcome in type 1 diabetes: a longitudinal study.**
Vélayoudom-Céphise FL et al. Cardiovasc Diabetol. 2016 Sep 1;15(1):127.
6. **Skin Autofluorescence and Pentosidine Are Associated With Aortic Stiffening: The Maastricht Study.**
van Eupen MG et al. Hypertension. 2016 Oct;68(4):956-63.
7. **Skin fluorescence as a clinical tool for non-invasive assessment of advanced glycation and long-term complications of diabetes.**
Fokkens BT, Smit AJ. Glycoconj J. 2016 Aug;33(4):527-35.

- 8. ADVANCED GLYCATION END PRODUCT (AGE) ACCUMULATION IN THE SKIN IS ASSOCIATED WITH DEPRESSION: THE MAASTRICHT STUDY.**
van Dooren FE et al. *Depress Anxiety*. 2016 Jun 6. (Epub)
- 9. Skin autofluorescence and peripheral neuropathy four years later in type 1 diabetes.**
Rajaobelina K. et al. *Diabetes Metab Res Rev*. 2016 May 27. Epub
- 10. The relationship between advanced glycation endproducts and ocular circulation in type 2 diabetes.**
Hashimoto K. et al. *J Diabetes Complications* 2016 May 4. Epub.
- 11. Advanced Glycation Endproducts and Bone Material Strength in Type 2 Diabetes.**
Furst J.R. et al. *J Clin Endocrinol Metab*. 2016 Apr 26. Epub.
- 12. Association of Advanced Glycation End Products with coronary Artery Calcification in Japanese Subjects with Type 2 Diabetes as Assessed by Skin Autofluorescence.**
Hangai M. et al. *J Atheroscler Thromb*. 2016 Mar 10.
- 13. Non-invasive Measurement of Skin Autofluorescence as a Beneficial Surrogate Marker for Atherosclerosis in Patients with Type 2 Diabetes.**
Temma J. et al. *J Med Invest*. 2015;62(3-4):126-9.
- 14. Advanced glycation end products, measured in skin, vs. HbA1c in children with type 1 diabetes mellitus.**
Banser A. et al. *Pediatr Diabetes*. 2015 Sep 2.
- 15. Relationship between skin auto fluorescence and conventional glycemic markers in patients with diabetes.**
Mácsai E. et al. *Orv Hetil*. 2015 Aug 16;156(33):1341-7.
- 16. In diabetic Charcot neuroarthropathy impaired microvascular function is related to long lasting metabolic control and low grade inflammatory process.**
Araszkievicz A. et al. *Microvasc Res*. 2015 Aug 1;101:143-147.
- 17. Vitamin D status is associated with skin autofluorescence in patients with type 2 diabetes mellitus: a preliminary report.**
Krul-Poel Y.H. et al. *Cardiovasc Diabetol*. 2015 Jul 16;14:89.
- 18. Is skin autofluorescence a marker of metabolic memory in pregnant women with diabetes?**
Maury E. et al. *Diabet Med*. 2015 May 16.
- 19. The Association Between Skin Autofluorescence and Vascular Complications in Chinese Patients With Diabetic Foot Ulcer: An Observational Study Done in Shanghai.**
Liu C. et al. *Int J Low Extrem Wounds*. 2015. (Epub)
- 20. Autofluorescence of Skin Advanced Glycation End Products: Marker of Metabolic Memory in Elderly Population.**
Rajaobelina K. et al. *J Gerontol A Biol Sci Med Sci*. 2015 Jan 14 (Epub)
- 21. Skin autofluorescence is associated with carotid intima-media thickness, diabetic microangiopathy, and long-lasting metabolic control in type 1 diabetic patients. Results from Poznan Prospective Study.**
Araszkievicz A. et al. *Microvasc Res*. 2015 Jan 10 (Epub)
- 22. Association of advanced glycation end products and chronic kidney disease with macroangiopathy in type 2 diabetes.**
Rigalleau V. et al. *J Diabetes Complications*. 2014 Oct 30. Epub
- 23. Advanced glycation end products (AGEs) and the soluble receptor for AGE (sRAGE) in patients with type 1 diabetes and coeliac disease.**
Bakker S.F. et al. *Nutr Metab Cardiovasc Dis*. 2014 Nov 1.Epub
- 24. Associations of advanced glycation endproducts with cognitive functions in individuals with and without type 2 diabetes.**
Spauwen P.J. et al. *J Clin Endocrinol Metab*. 2014 Dec 2
- 25. Relationship of Skin Autofluorescence to Severity of Retinopathy in Type 2 Diabetes.**
Yasuda M. et al. *Curr Eye Res*. 2014 May 28:1-8.
- 26. Type 2 diabetes mellitus, skin autofluorescence and brain atrophy.**
Moran C. et al. *Diabetes*. 2014 Jul 22.

- 27. AGEs and chronic subclinical inflammation in diabetes: disorders of immune system.**
Hu H. et al. Diabetes Metab Res Rev. 2014 May 20. Epub
- 28. Correlation between diabetic makuls severity and elevated skin autofluorescence as a marker of advanced glycation end-product accumulation in type 2 diabetic patients.**
Hirano T. et al. J Diabetes Complications. 2014 Mar 10. Epub
- 29. Advanced glycation end products are associated with arterial stiffness in type 1 diabetes.**
Llauradó G. et al. J Endocrinol. 2014 Jun;221(3):405-13.
- 30. Messung der Autofluoreszenz der Haut.**
Stirban A. and Heinemann L. Diabetes Stoffw Herz. 2013; 22 (full text available)
- 31. Skin autofluorescence relates to soluble receptor for advanced glycation end-products and albuminuria in diabetes mellitus.**
Skrha J Jr. et al. J Diabetes Res. Epub 2013 Mar 10.
- 32. Skin autofluorescence based decision tree in detection of impaired glucose tolerance and diabetes.**
Smit AJ. et al. PLoS One. 2013 Jun 4;8(6):e65592.
- 33. Potential inhibitory effects of L-carnitine supplementation on tissue advanced glycation end products in patients with hemodialysis.**
Fukami K. Rejuvenation Res. 2013 Aug 4. [Epub ahead of print]
- 34. Skin autofluorescence relates to soluble receptor for advanced glycation end-products and albuminuria in diabetes mellitus.**
Skrha J Jr. et al. J Diabetes Res. 2013;2013:650694.
- 35. Skin autofluorescence is associated with past glycaemic control and complications in type 1 diabetes mellitus.**
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- 36. Advanced Glycation End Products Assessed by Skin Autofluorescence-A New Marker of Diabetic Foot Ulceration.**
Vouillarmet J. et al. Diabetes Technol Ther. 2013 Apr 30. [Epub ahead of print]
- 37. Study design of DIACORE (DIAbetes COHoRtE) - a cohort study of patients with diabetes mellitus type 2.**
Dörhöfer L, BMC Med Genet. 2013 Feb 14;14:25.
- 38. Verification of Skin Autofluorescence Values by Mass Spectrometry in Adolescents with Type 1 Diabetes: Brief Report.**
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- 39. Advanced glycation end products in infant formulas do not contribute to insulin resistance associated with their consumption.**
Klenovics KS. et al. PLoS One. 2013;8(1):e53056.
- 40. 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)
- 41. Skin autofluorescence measurement in diabetological and nephrological clinical practice.**
Mácsai E. et al. Orv Hetil. 2012 Oct 21;153(42):1651-7.
- 42. 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.
- 43. 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.
- 44. 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.
- 45. Advanced Glycation Endproducts and Diabetic Cardiovascular Disease.**
Prasad A. et al. Cardiol Rev. 2012 Feb 6. Epub

46. **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.
47. **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
48. **Skin autofluorescence is inversely related to HDL anti-oxidative capacity in type 2 diabetes mellitus.**
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49. **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
50. **Increased accumulation of skin advanced glycation end products is associated with microvascular complications in type 1 diabetes.**
Araszkiewicz A. et al. Diabetes Technol Ther. 2011 Aug;13(8):837-42.
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52. **Advanced glycation end products, measured as skin autofluorescence and diabetes complications: a systematic review.**
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53. **Tissue advanced glycation end products are associated with diastolic function and aerobic exercise capacity in diabetic heart failure patients.**
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54. **Skin autofluorescence and glycemic variability.**
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55. **Advanced glycation end products assessed by skin autofluorescence in type 1 diabetics are associated with nephropathy, but not retinopathy.**
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56. **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**
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57. **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
58. **Skin autofluorescence is a strong predictor of cardiac mortality in diabetes**
Meerwaldt R, et al. Diabetes Care 2007, 30: 107-112
59. **Skin autofluorescence in type 2 diabetes: Beyond blood glucose**
Monami M. et al. Diabetes Research & Clinical Practice July 2007. epub
60. **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
61. **Increased accumulation of skin advanced glycation end-products precedes and correlates with clinical manifestation of diabetic neuropathy**
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AGE Reader in cardiovascular disease

- 63. Association of Skin Autofluorescence Levels With Kidney Function Decline in Patients With Peripheral Artery Disease.**
Schutte E et al. *Arterioscler Thromb Vasc Biol.* 2016 Aug;36(8):1709-14.
- 64. The Relationship Between Level of End-Products of Tissue Glycation and Pulse Wave Velocity in Non-diabetic Patients With Cardiovascular Disease.**
Ageev F.T. et al. *Kardiologija.* 2015;55(6):63-7.
- 65. Skin autofluorescence as a measure of advanced glycation end products deposition predicts 5-year amputation in patients with peripheral artery disease.**
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- 66. Evaluation of tissue accumulation levels of advanced glycation end products by skin autofluorescence: A novel marker of vascular complications in high-risk patients for cardiovascular disease.**
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- 71. 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)
- 72. Relationship between tissue glycation measured by autofluorescence and pulse wave velocity in young and elderly non-diabetic populations.**
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- 73. Advanced glycation end product associated skin autofluorescence: A mirror of vascular function?**
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- 74. 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.
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- 81. Relation between food and drinking habits, and skin autofluorescence and intima media thickness in subjects at high cardiovascular risk**
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- 86. Skin Autofluorescence is an independent marker for Acute Myocardial Infarction**
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AGE Reader in renal disease

- 87. Comparing changes in plasma and skin autofluorescence in low-flux versus high-flux hemodialysis.**
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- 91. Skin Autofluorescence Is a Predictor of Cardiovascular Disease in Chronic Kidney Disease Patients.**
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Kimura H. et al. Ther Apher Dial. 2014 Jan 24
- 97. Skin autofluorescence is associated with the progression of chronic kidney disease: a prospective observational study.**
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- 98. Skin and Plasma Autofluorescence During Hemodialysis: A Pilot Study.**
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- 99. Tissue Advanced Glycation End Product Deposition after Kidney Transplantation.**
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- 106. Advanced oxidation protein products and advanced glycation end products in children and adolescents with chronic renal insufficiency.**
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- 108. Skin autofluorescence and the association with renal and cardiovascular risk factors in chronic kidney disease stage 3.**
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- 111. Skin autofluorescence is associated with renal function and cardiovascular diseases in pre-dialysis chronic kidney disease patients.**
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- 112. 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
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McIntyre et al; *CJASN*, 2010; 5(1): 51-55
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- 121. Skin autofluorescence, a measure of cumulative metabolic stress and advanced glycation endproducts, predicts mortality in hemodialysis patients**
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AGE Reader in other diseases

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- 147. Skin Autofluorescence as Marker of Tissue Advanced Glycation End-Products Accumulation in Formerly Preeclamptic Women.**
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