

Keep up with the latest information from *Diabetes Care* and other ADA titles via Facebook ([f/ADAJournals](https://www.facebook.com/ADAJournals)) and Twitter ([@ADA\\_Journals](https://twitter.com/ADA_Journals)).

All articles in *Diabetes Care* are available online at [care.diabetesjournals.org](http://care.diabetesjournals.org). Cover articles (▶) and ADA Statements are available free of charge. Each cover article is accompanied by a complementary slide set that includes a summary of the article's key points and conclusions as well as associated tables and figures. Other articles are available free to print subscribers or can be purchased as e-prints or reprints.

## In This Issue

2137

### Commentaries

**2139** Implications of rising prediabetes prevalence  
T.M. Abraham, C.S. Fox

**2142** Novel forms of lipodystrophy: why should we care?  
K.I. Rother, R.J. Brown

**2146** Comparative effectiveness and the future of clinical research in diabetes  
S. Greenfield

### Clinical Care/Education/Nutrition/Psychosocial Research

**2148** Glucose variability assessed by low blood glucose index is predictive of hypoglycemic events in patients with type 1 diabetes switched to pump therapy  
L. Crenier, C. Abou-Elias, B. Corvilain

**2154** Canagliflozin lowers postprandial glucose and insulin by delaying intestinal glucose absorption in addition to increasing urinary glucose excretion: results of a randomized, placebo-controlled study  
D. Polidori, S. Sha, S. Mudaliar, T.P. Ciaraldi, A. Ghosh, N. Vaccaro, K. Farrell, P. Rothenberg, R.R. Henry

**2162** Determinants of weight gain in the Action to Control Cardiovascular Risk in Diabetes trial  
V. Fonseca, R. McDuffie, J. Calles, R.M. Cohen, P. Feeney, M. Feinglos, H.C. Gerstein, F. Ismail-Beigi, T.M. Morgan, R. Pop-Busui, M.C. Riddle, the ACCORD Study Group

**2169** Randomized study comparing a basal-bolus with a basal plus correction insulin regimen for the hospital management of medical and surgical patients with type 2 diabetes: Basal Plus Trial  
G.E. Umpierrez, D. Smiley, K. Hermayer, A. Khan, D.E. Olson, C. Newton, S. Jacobs, M. Rizzo, L. Peng, D. Reyes, I. Pinzon, M.E. Ferreira, V. Hunt, A. Gore, M.T. Toyoshima, V.A. Fonseca

▶ **2175** Metabolic effects of bariatric surgery in patients with moderate obesity and type 2 diabetes: analysis of a randomized control trial comparing surgery with intensive medical treatment  
S.R. Kashyap, D.L. Bhatt, K. Wolski, R.M. Watanabe, M. Abdul-Ghani, B. Abood, C.E. Pothier, S. Brethauer, S. Nissen, M. Gupta, J.P. Kirwan, P.R. Schauer

**2183** Effects of a single bout of interval hypoxia on cardiorespiratory control and blood glucose in patients with type 2 diabetes  
T. Duennwald, H. Gatterer, P.-H. Groop, M. Burtscher, L. Bernardi

**2190** Clinical profile of long-term survivors and nonsurvivors with type 2 diabetes  
V. Mohan, C.S. Shanthy Rani, A. Amutha, S. Dhulipala, R.M. Anjana, B. Parathasarathy, R. Unnikrishnan

**2198** Psychometric properties, norms, and factor structure of the Diabetes Eating Problem Survey—Revised in a large sample of children and adolescents with type 1 diabetes  
L. Wisting, D.H. Frøisland, T. Skriverhaug, K. Dahl-Jørgensen, Ø. Rø

**2203** Diagnosing diabetic foot osteomyelitis in patients without signs of soft tissue infection by coupling hybrid <sup>67</sup>Ga SPECT/CT with bedside percutaneous bone puncture  
E. Aslangul, J. M'Bemba, N. Caillat-Vigneron, S. Coignard, E. Langer, C. Boitard, B.A. Lipsky

**2211** Randomized assessment of ticagrelor versus prasugrel antiplatelet effects in patients with diabetes  
D. Alexopoulos, I. Xanthopoulou, E. Mavronasiou, K. Stavrou, A. Siapika, E. Tsoni, P. Davlourous

**2217** Large pre- and postexercise rapid-acting insulin reductions preserve glycemia and prevent early- but not late-onset hypoglycemia in patients with type 1 diabetes  
M.D. Campbell, M. Walker, M.I. Trenell, D.G. Jakovljevic, E.J. Stevenson, R.M. Bracken, S.C. Bain, D.J. West

**2225** Renal function following three distinct weight loss dietary strategies during 2 years of a randomized controlled trial  
A. Tirosh, R. Golan, I. Harman-Boehm, Y. Henkin, D. Schwarzfuchs, A. Rudich, J. Kovsky, G.M. Fiedler, M. Blüher, M. Stumvoll, J. Thiery, M.J. Stampfer, I. Shai

**2233** Low-carbohydrate diet for the treatment of gestational diabetes mellitus: a randomized controlled trial  
C. Moreno-Castilla, M. Hernandez, M. Bergua, M.C. Alvarez, M.A. Arce, K. Rodriguez, M. Martinez-Alonso, M. Iglesias, M. Mateu, M.D. Santos, L.R. Pacheco, Y. Blasco, E. Martin, N. Balsells, N. Aranda, D. Mauricio

**2239** Double-blind, randomized study evaluating the glycemic and anti-inflammatory effects of subcutaneous LY2189102, a neutralizing IL-1 $\beta$  antibody, in patients with type 2 diabetes  
J. Sloan-Lancaster, E. Abu-Raddad, J. Polzer, J.W. Miller, J.C. Scherer, A. De Gaetano, J.K. Berg, W.H. Landschulz

▶ **2247** Type 2 diabetes with partial lipodystrophy of the limbs: a new lipodystrophy phenotype  
L.R. Strickland, F. Guo, K. Lok, W.T. Garvey

**2254** Rationale and design of the Glycemia Reduction Approaches in Diabetes: A Comparative Effectiveness Study (GRADE)  
D.M. Nathan, J.B. Buse, S.E. Kahn, H. Krause-Steinrauf, M.E. Larkin, M. Staten, D. Wexler, J.M. Lachin, the GRADE Study Research Group

**2262** Effects of intraduodenal glutamine on incretin hormone and insulin release, the glycemic response to an intraduodenal glucose infusion, and antropyloroduodenal motility in health and type 2 diabetes  
J. Chang, T. Wu, J.R. Greenfield, D. Samocha-Bonet, M. Horowitz, C.K. Rayner

### Epidemiology/Health Services Research

**2266** Proinsulin/insulin autoantibodies measured with electrochemiluminescent assay are the earliest indicator of prediabetic islet autoimmunity  
L. Yu, F. Dong, D. Miao, A.R. Fouts, J.M. Wenzlau, A.K. Steck

▶ **2271** The prevalence of meeting A1C, blood pressure, and LDL goals among people with diabetes, 1988–2010  
S. Stark Casagrande, J.E. Fradkin, S.H. Saydah, K.F. Rust, C.C. Cowie

**2280** Use of the estimated glucose disposal rate as a measure of insulin resistance in an urban multiethnic population with type 1 diabetes  
E.J. Epstein, J.L. Osman, H.W. Cohen, S.N. Rajpathak, O. Lewis, J.P. Crandall

**2286** Secular changes in U.S. prediabetes prevalence defined by hemoglobin A<sub>1c</sub> and fasting plasma glucose: National Health and Nutrition Examination Surveys, 1999–2010

K.M. Bullard, S.H. Saydah, G. Imperatore, C.C. Cowie, E.W. Gregg, L.S. Geiss, Y.J. Cheng, D.B. Rolka, D.E. Williams, C.J. Caspersen

**2294** Metabolically healthy obesity and risk of mortality: does the definition of metabolic health matter?

G.-M. Hinnouho, S. Czernichow, A. Dugravot, G.D. Batty, M. Kivimaki, A. Singh-Manoux

## Pathophysiology/Complications

**2301** HbA<sub>1c</sub> variability as an independent correlate of nephropathy, but not retinopathy, in patients with type 2 diabetes: the Renal Insufficiency And Cardiovascular Events (RIACE) Italian Multicenter Study

G. Penno, A. Solini, E. Bonora, C. Fondelli, E. Orsi, G. Zerbini, S. Morano, F. Cavalot, O. Lamacchia, L. Laviola, A. Nicolucci, G. Pugliese, for the Renal Insufficiency And Cardiovascular Events (RIACE) Study Group

**2311** Switching to sulphonylureas in children with iDEND syndrome caused by KCNJ11 mutations results in improved cerebellar perfusion

W. Fendler, I. Pietrzak, M.F. Brereton, C. Lahmann, M. Gadzicki, M. Bienkiewicz, I. Drozd, M. Borowiec, M.T. Malecki, F.M. Ashcroft, W.M. Mlynarski

**2317** Baseline markers of inflammation are associated with progression to macroalbuminuria in type 1 diabetic subjects

M.F. Lopes-Virella, N.L. Baker, K.J. Hunt, P.A. Cleary, R. Klein, G. Virella, the DCCT/EDIC Research Group

**2324** Expansion of the homeostasis model assessment of  $\beta$ -cell function and insulin resistance to enable clinical trial outcome modeling through the interactive adjustment of physiology and treatment effects: iHOMA2

N.R. Hill, J.C. Levy, D.R. Matthews

**2331** Circulating lysophosphatidylcholines are markers of a metabolically benign nonalcoholic fatty liver

R. Lehmann, H. Franken, S. Dammeier, L. Rosenbaum, K. Kantartzis, A. Peter, A. Zell, P. Adam, J. Li, G. Xu, A. Königsrainer, J. Machann, F. Schick, M. Hrabě de Angelis, M. Schwab, H. Staiger, E. Schleicher, A. Gastaldelli, A. Fritsche, H.-U. Häring, N. Stefan

**2339** Skin autofluorescence reflects integration of past long-term glycemic control in patients with type 1 diabetes

E. Sugisawa, J. Miura, Y. Iwamoto, Y. Uchigata

**2346** Glucagon-like peptide 1 reduces endothelial dysfunction, inflammation, and oxidative stress induced by both hyperglycemia and hypoglycemia in type 1 diabetes

A. Ceriello, A. Novials, E. Ortega, S. Canivell, L. La Sala, G. Pujadas, K. Esposito, D. Giugliano, S. Genovese

## Cardiovascular and Metabolic Risk

**2351** Reduced heart rate variability is associated with increased arterial stiffness in youth with type 1 diabetes: the SEARCH CVD study

M. Jaiswal, E.M. Urbina, R.P. Wadwa, J.W. Talton, R.B. D'Agostino, Jr., R.F. Hamman, T.E. Fingerlin, S.R. Daniels, S.M. Marcovina, L.M. Dolan, D. Dabelea

**2359** Central pulse pressure and its hemodynamic determinants in middle-aged adults with impaired fasting glucose and diabetes: the Asklepios study

J.A. Chirinos, P. Segers, T.C. Gillebert, M.L. De Buyzere, C.M. Van daele, Z.A. Khan, U. Khawar, D. De Bacquer, E.R. Rietzschel, on behalf of the Asklepios Investigators

**2366** All-cause and cardiovascular mortality in middle-aged people with type 2 diabetes compared with people without diabetes in a large U.K. primary care database

K.S. Taylor, C.J. Heneghan, A.J. Farmer, A.M. Fuller, A.I. Adler, J.K. Aronson, R.J. Stevens

**2372** Changes in insulin resistance and HbA<sub>1c</sub> are related to exercise-mediated changes in body composition in older adults with type 2 diabetes: interim outcomes from the GREAT2DO trial

Y. Mavros, S. Kay, K.A. Anderberg, M.K. Baker, Y. Wang, R. Zhao, J. Meiklejohn, M. Climstein, A. O'Sullivan, N. de Vos, B.T. Baune, S.N. Blair, D. Simar, K. Rooney, N. Singh, M.A. Fiatarone Singh

**2380** Aortic distensibility in type 1 diabetes

E.B. Turkbey, A. Redheuil, J.-Y.C. Backlund, A.C. Small, P.A. Cleary, J.M. Lachin, J.A.C. Lima, D.A. Bluemke, the Diabetes Control and Complications Trial/Epidemiology of Diabetes Interventions and Complications Research Group

**2388** Diabetes and cardiovascular disease outcomes in the metabolically healthy obese phenotype: a cohort study

S.L. Appleton, C.J. Seaborn, R. Visvanathan, C.L. Hill, T.K. Gill, A.W. Taylor, R.J. Adams, on behalf of the North West Adelaide Health Study Team

**2395** Impact of diabetes on cardiac sympathetic innervation in patients with heart failure: a <sup>123</sup>I meta-iodobenzylguanidine (<sup>123</sup>I MIBG) scintigraphic study

S. Paolillo, G. Rengo, G. Pagano, T. Pellegrino, G. Savarese, G.D. Femminella, M. Tuccillo, A. Boemio, E. Attena, R. Formisano, L. Petraglia, F. Scopacasa, G. Galasso, D. Leosco, B. Trimarco, A. Cuocolo, P. Perrone-Filardi

**2402** Psoriasis and new-onset diabetes: a Danish nationwide cohort study

U. Khalid, P.R. Hansen, G.H. Gislason, J. Lindhardsen, S.L. Kristensen, S.A. Winther, L. Skov, C. Torp-Pedersen, O. Ahlehoff

**2408** The effect of intensive glucose lowering on lipoprotein particle profiles and inflammatory markers in the Veterans Affairs Diabetes Trial (VADT)

J. Koska, A. Saremi, G. Bahn, S. Yamashita, P.D. Reaven, for the Veterans Affairs Diabetes Trial Investigators

**2415** Metabolic effects of chronic cannabis smoking

R. Muniyappa, S. Sable, R. Ouwerkerk, A. Mari, A.M. Gharib, M. Walter, A. Courville, G. Hall, K.Y. Chen, N.D. Volkow, G. Kunos, M.A. Huestis, M.C. Skarulis

**2423** Circulating vitamin D metabolites and subclinical atherosclerosis in type 1 diabetes

M.C. Sachs, J.D. Brunzell, P.A. Cleary, A.N. Hoofnagle, J.M. Lachin, M.E. Molitch, M.W. Steffes, B. Zinman, I.H. de Boer, the Diabetes Control and Complications Trial/Epidemiology of Diabetes Interventions and Complications Study (DCCT/EDIC) Research Group

## Scientific Statement

► **2430** Scientific statement: socioecological determinants of prediabetes and type 2 diabetes

J.O. Hill, J.M. Galloway, A. Goley, D.G. Marrero, R. Minners, B. Montgomery, G.E. Peterson, R.E. Ratner, E. Sanchez, V.R. Aroda

## Review Article

**2440** Pancreas transplant alone: a procedure coming of age

R.W.G. Gruessner, A.C. Gruessner

## Errata

**2448** Rapid rise in hypertension and nephropathy in youth with type 2 diabetes: the TODAY clinical trial. *Diabetes Care* 2013;36:1735–1741

TODAY Study Group

**2448** Osteoprotegerin is an independent predictor of vascular events in Finnish adults with type 1 diabetes. *Diabetes Care* 2013;36:1827–1833

D. Gordin, A. Soro-Paavonen, M.C. Thomas, V. Harjutsalo, M. Saraheimo, M. Bjerre, C. Forsblom, A. Flyvbjerg, P.-H. Groop, on behalf of the FinnDiane Study Group

## Issues and Events

**2449**

## Online Letters: Observations

- e113** Dietary quality in adolescents with type 1 diabetes  
N. Bansal, L. Cuttler, M.A. O’Riordan, M.B. Koontz
- e114** Role of anti-phospholipase A(2) receptor antibodies in the differential diagnosis of diabetic and membranous nephropathy  
M. Pocivalnik, O. Tsybrovskyy, C. Schwarz, A.R. Rosenkranz, K. Eller, P. Eller
- e116** Anti-pituitary antibodies and hypogonadotropic hypogonadism in type 2 diabetes: in search of a role  
G. Bellastella, M.I. Maiorino, L. Olita, A. De Bellis, D. Giugliano, K. Esposito
- e118** Sociodemographic variables for predicting diabetes in Panama  
A.J. Mc Donald Posso, J.A. Montenegro G., C.E. Cruz, A.L. Moreno de Rivera, A. Cumbreira
- e119** Sitagliptin improves postprandial hyperglycemia by inhibiting glucagon secretion in Werner syndrome with diabetes  
K. Watanabe, K. Kobayashi, M. Takemoto, R. Ishibashi, M. Yamaga, H. Kawamura, M. Fujimoto, T. Ishikawa, S. Onishi, E. Okabe, P. He, K. Yokote
- e120** Latent autoimmune diabetes in adults presenting as diabetes “recurrence” after bariatric surgery: a case report  
S.B. Manning, A. Pucci, R.L. Batterham, N. Finer
- e121** Hypoglycemia in adults with cystic fibrosis during oral glucose tolerance testing  
I.B. Hirsch, M.M. Janci, C.H. Goss, M.L. Aitken

## Online Letters: Comments and Responses

- e123** Comment on: Kan et al. A systematic review and meta-analysis of the association between depression and insulin resistance.  
Diabetes Care 2013;36:480–489  
T. Kawada
- e124** Response to comment on: Kan et al. A systematic review and meta-analysis of the association between depression and insulin resistance. Diabetes Care 2013;36:480–489  
C. Kan, N. Silva, S.H. Golden, U. Rajala, M. Timonen, D. Stahl, K. Ismail
- e125** Comment on: Beverly et al. Do older adults aged 60–75 years benefit from diabetes behavioral interventions?  
Diabetes Care 2013;36:1501–1506  
M. Trento, P. Passera, F. Cavallo, M. Porta

- e126** Response to comment on: Beverly et al. Do older adults aged 60–75 years benefit from diabetes behavioral interventions?  
Diabetes Care 2013;36:1501–1506  
E.A. Beverly, K. Weinger
- e127** Comment on: Black et al. The relative contribution of prepregnancy overweight and obesity, gestational weight gain, and IADPSG-defined gestational diabetes mellitus to fetal overgrowth.  
Diabetes Care 2013;36:56–62  
H.D. McIntyre, P.M. Catalano
- e128** Response to comment on: Black et al. The relative contribution of prepregnancy overweight and obesity, gestational weight gain, and IADPSG-defined gestational diabetes mellitus to fetal overgrowth.  
Diabetes Care 2013;36:56–62  
M.H. Black, D.A. Sacks, A.H. Xiang, J.M. Lawrence
- e129** Comment on: Margolis et al. Lack of effectiveness of hyperbaric oxygen therapy for the treatment of diabetic foot ulcer and the prevention of amputation: a cohort study. Diabetes Care 2013;36:1961–1966  
G.C. Hawkins
- e130** Comment on: Margolis et al. Lack of effectiveness of hyperbaric oxygen therapy for the treatment of diabetic foot ulcer and the prevention of amputation: a cohort study. Diabetes Care 2013;36:1961–1966  
S. Sherlock
- e131** Comment on: Margolis et al. Lack of effectiveness of hyperbaric oxygen therapy for the treatment of diabetic foot ulcer and the prevention of amputation: a cohort study. Diabetes Care 2013;36:1961–1966  
M.J. Carter, C.E. Fife, M. Bennett
- e132** Response to comments on: Margolis et al. Lack of effectiveness of hyperbaric oxygen therapy for the treatment of diabetic foot ulcer and the prevention of amputation: a cohort study.  
Diabetes Care 2013;36:1961–1966  
D.J. Margolis, J. Gupta, O. Hoffstad, M. Papadopoulos, S.R. Thom, N. Mitra
- e134** Response to comment on: Hanssen et al. Associations between the ankle-brachial index and cardiovascular and all-cause mortality are similar in individuals without and with type 2 diabetes: nineteen-year follow-up of a population-based cohort study.  
Diabetes Care 2012;35:1731–1735  
N.M.J. Hanssen, M.S. Huijberts, C.G. Schalkwijk, G. Nijpels, J.M. Dekker, C.D.A. Stehouwer

**Diabetes Care is available online at  
[care.diabetesjournals.org](http://care.diabetesjournals.org).**