

# Index

- 4S (Scandinavian Simvastatin Survival Study) 134, 192, 204
- A**
- ABCD (Appropriate Blood Pressure Control in Diabetes) trial 141, 192
- abdominal obesity *see* central obesity
- acanthosis nigricans 22
- acarbose 95  
value in prevention of type 2 diabetes 6
- ACAS (Asymptomatic Carotid Atherosclerosis Study) 205
- ACE (angiotensin-converting enzyme) inhibitors 11, 141, 142, 159, 160–2
- avoidance in pre-eclampsia 117
- effect on atherosclerosis progression 194
- and pregnancy 108
- in prevention of retinopathy 168–9
- and renal artery stenosis 195
- stroke reduction 204
- value in advancing renal failure 164
- value in ischaemic heart disease 188, 190
- value in microalbuminuria 155–6, 157
- ACHOIS (Australian Carbohydrate Intolerance Study in Pregnant Women) 106
- acipimox 126
- acromegaly 22, 146
- acupuncture, value in DPN 151
- acute (Charcot) neuroarthropathy 56
- acute myocardial infarction *see* myocardial infarction
- acute stroke *see* stroke
- adiponectin gene polymorphisms 19
- adiponectin levels, effect of thiazolidinediones 82
- adolescent diabetes 69–71
- adrenal adenomas 145–6
- adrenaline, secretion in hypoglycaemia 35
- adrenergic symptoms, hypoglycaemia 36
- adult diabetes services, transition to 69, 71
- adult respiratory distress syndrome 33
- African-American women, insulin sensitivity 10
- age-related macular degeneration (AMD) 175–6  
risk factors for 177
- albumin-creatinine ratio (ACR) 155  
value in cystic fibrosis-related diabetes 213
- albumin excretion rate (AER) 155
- albuminuria 130  
as predictor of stroke 44  
*see also* microalbuminuria
- alcohol binges, as cause of diabetic ketoacidosis 26
- alcohol consumption  
as cause of hypertriglyceridaemia 126  
and pregnancy 110
- aldose reductase inhibitors 157
- aldosterone antagonists 147, 157
- ALLHAT (Antihypertensive and Lipid-Lowering treatment to prevent Heart ATtack) 141
- allodynia 150
- alpha-glucosidase inhibitors, use by elderly people 95
- alpha-blockers 142  
ALLHAT 141  
contraindication to PDE-5 inhibitors 112
- alpha-lipoic acid, value in DPN 152
- alprostadil, intracavernosal injection 113
- alteplase, value after acute stroke 44
- amantadine, value in DPN 151
- ambulatory blood pressure monitoring (ABPM) 144, 147
- American Diabetes Association  
recommendations on aspirin usage 138
- screening protocol for gestational diabetes 104
- American Heart Association  
recommendations on aspirin usage 138  
reduction of triglyceride levels 126
- amino acid supplementation, elderly people 96
- aminoguanidine 157
- amiodarone, as cause of autonomic neuropathy 178
- amitriptyline, value in DPN 150, 152
- amoxicillin/clavulanic acid 57
- amputation rates  
foot ulcers 199, 202  
intermittent claudication 47
- amylin 79
- amyloidosis, as cause of autonomic neuropathy 178
- anaemia, association with coeliac disease 220
- anaerobic infections 57
- analogue insulins  
use in diabetic ketoacidosis 28, 29  
use during pregnancy 110  
use in elderly people 95
- angina 187–90
- angiogenic growth factors, value in peripheral arterial disease 193–4
- angioplasty, for peripheral arterial disease 48
- angiopoietin-1 (ANG-1) 173
- angiotensin II receptor blockers 11, 141, 142, 160  
avoidance in pre-eclampsia 117  
in prevention of retinopathy 169  
and renal artery stenosis 195  
value in advancing renal failure 164  
value in microalbuminuria 156, 157
- anion gap, in diabetic ketoacidosis 26
- ankle-brachial pressure index (ABPI) 48, 192

- antenatal surveillance, type 1 diabetes 109
- anti-endothelial antibodies 221
- anti-insulin antibodies 22
- Anti-Platelet Trialists (APT) 137
- antibiotic resistance 58–9
- antibiotic therapy, infected foot 57–8, 59, 200
- anticonvulsants, value in DPN 151, 152, 153
- antidopaminergic medications, as cause of erectile dysfunction 112
- antihypertensive therapy 11
- in advancing renal failure 164
- choice of agent 142–3
- effect on peripheral arterial disease 192
- in microalbuminuria 155
- in pre-eclampsia 117
- in prevention of retinopathy 168–9, 177
- RAS blockade 159–62
- stroke prevention 204, 206
- antioxidant vitamins
- and age-related macular degeneration 176
- in HPS 134
- antiplatelet drugs 139, 203
- in peripheral arterial disease 192
- value in microalbuminuria 157
- see also* aspirin
- antithrombotic therapy 203
- aortic coarctation 146
- aorto-bifemoral bypass 49
- Apligraf 202
- apnoea-hypopnoea index 208
- apolipoprotein C-II deficiency 126
- apomorphine, sublingual 113
- appetite, effect of cannabinoids 91
- aromatase inhibitors, use in polycystic ovarian syndrome 100
- arterial blood sampling 26
- arteriography, diagnosis of renal artery stenosis 196
- aspirin 11, 137–9
- effect on risk of pre-eclampsia 118
- in retinopathy prevention 169, 173
- in stroke prevention 203
- value in advancing renal failure 164
- value in ischaemic stroke 44, 46
- value in microalbuminuria 157
- value in peripheral arterial disease 192
- ASTRAL (Angioplasty and Stent for Renal Artery Lesions) trial 145, 197–8
- atenolol
- in hypertension management 11
- see also* beta-blockers
- atherosclerosis progression, effect of ACE inhibitors 194
- Atkins diet 72
- atorvastatin
- CARDS 204
- combination with torcetrapib 135
- TNT study 130
- see also* statins
- atrial fibrillation
- antithrombotic therapy 203
- stroke risk 44
- atrial overpacing 180
- atypical diabetes 29
- autoantibodies, to insulin receptor 22
- autoimmune diabetes, in elderly people 93
- autoimmune disease, association with coeliac disease 221
- autoimmunity, role in type 1 diabetes 3
- autonomic impairment, multiple sclerosis 36
- autonomic neuropathy 178–81
- as cause of diabetic ketoacidosis 26
- as cause of sleep disordered breathing 208
- role in Charcot foot 182
- role in ulceration 58
- stroke risk 44
- B**
- background retinopathy 167, 169–70
- Baltimore Longitudinal Study of Aging 19
- BARI (Bypass Angioplasty Revascularization Investigation) trial 188
- bariatric surgery 91, 92
- becaplermin 202
- beta-blockers 141, 142
- as cause of erectile dysfunction 112
- as cause of weight gain 89
- in hypertension management 11
- oxprenolol, use in pre-eclampsia 117
- use in peripheral arterial disease 192
- beta cell function assessment 2
- bezafibrate 126
- bicarbonate, levels in hyperosmolar hyperglycaemic state 31
- bicarbonate infusion, diabetic ketoacidosis 29
- biguanides *see* metformin
- bisphosphonates, value in neuroarthropathy 183, 185
- black patients, antihypertensive treatment 141
- bladder dysfunction 178
- blindness 167
- causes 175–6
- blood pressure
- effect of subutramine 91
- orthostatic hypotension 178, 179–80
- see also* hypertension
- blood pressure control 141
- effect on microalbuminuria progression 155
- effect on peripheral arterial disease 192
- effect on retinopathy progression 168–9, 177
- effect on stroke risk 204, 206
- see also* antihypertensive therapy; hypertension
- blue vision, as side effect of sildenafil 114
- body mass index (BMI) 89
- bone mineral density, in coeliac disease 221–2
- bowel habit, altered 178
- breast-feeding, effect on risk of type 1 diabetes 2–3, 4
- British Hypertension Society AB/CD guideline 204
- brittle diabetes 69
- Buerger's test 48
- bupropion, value in smoking cessation 122–3
- C**
- cachexia 94
- Caesarean section 110
- in pre-eclampsia 117
- calcitonin gene-related peptide 184
- calcium channel blockers 141, 142
- stroke prevention 204
- CALM (Candesartan And Lisinopril Microalbuminuria) study 161

- candesartan  
CALM study 161  
DIRECT 169
- cannabinoids, effect on appetite 91
- capillary blood glucose, value in screening 19, 20
- CAPRIE (Clopidogrel versus Aspirin in Patients at Risk of Ischaemic Events) 192
- capsaicin, value in DPN 151
- carbamazepine, value in DPN 151, 152
- carbohydrate  
excessive consumption 72–3  
requirements during exercise 66, 67
- carbohydrate content, enteral feeds 86
- cardiac autonomic neuropathy 179
- cardiovascular disease risk  
association with pre-eclampsia 118  
effect of aspirin 137–9  
estimation of 136, 140  
impact of diabetes 10  
management after menopause 10–12  
in microalbuminuria 157  
in obstructive sleep apnoea 208  
in peripheral arterial disease 47–8  
polycystic ovarian syndrome 102  
relationship to IGT and IFG 19  
in type 1 diabetes 129–30  
value of blood pressure reduction 141
- cardiovascular risk assessment 8
- cardiovascular risk factors  
effect of aggressive treatment 142  
relationship to diabetes risk 127
- cardiovascular risk management, peri-menopausal 9–12
- CARDS (Collaborative Atorvastatin Diabetes Study) 204
- CARE (Cholesterol and Recurrent Events) study 134
- carotid artery stenosis 180–1
- carotid artery stenting 205
- carotid endarterectomy 205
- cataract extraction 173
- CBI receptor blockade 91
- central line insertion, indication in diabetic ketoacidosis 26
- central obesity 10, 11  
effect on lipid profile 133  
insulin resistance 21  
stroke risk 44
- cerebral oedema  
avoidance in hyperosmolar hyperglycaemic state 33  
in diabetic ketoacidosis 26
- CETP (cholesteryl ester transfer protein) inhibition 135
- Charcot neuroarthropathy 56, 182–5
- CHHIPS (Controlling Hypertension and Hypotension Immediately Post-Stroke) pilot trial 45
- childhood type 1 diabetes, prevention 2–4
- children  
coeliac disease 221, 223  
*see also* adolescent diabetes
- chlorpropamide 77, 94  
avoidance in renal failure 217
- chlorthalidone, ALLHAT 141
- cholinergic symptoms, hypoglycaemia 36
- chylomicronaemia 126
- cilostazol 139  
value in peripheral arterial disease 192, 194
- cimetidine, as cause of erectile dysfunction 112
- ciprofibrate 126
- ciprofloxacin 57, 58
- clindamycin 57, 58
- clinically significant macular oedema (CSMO) 173
- clomiphene citrate 100
- clonidine, value in smoking cessation 123
- clopidogrel 139  
stroke prevention 203, 206  
value in peripheral arterial disease 192
- coarctation of aorta 146
- Cochrane Tobacco Addiction Review 122
- Cockcroft-Gault formula 164
- cod liver oil, effect on risk of type 1 diabetes 3, 4
- coeliac disease 220–4
- cognitive function 36  
effect of diabetes 37, 38, 94
- collateral circulation, improvement in peripheral arterial disease 192, 193–4
- colour vision, loss of 175
- combination lipid-lowering therapy 134
- combination oral hypoglycaemic therapy 82
- combined hyperlipidaemia, familial 126
- compliance with treatment 144  
elderly people 94
- complications  
of gestational diabetes 103  
of laser photocoagulation 172–3  
of PEG feeding 87  
of pre-eclampsia 116
- congenital malformations, type 1 diabetes 107–8
- connective tissue glycation 182
- Conn's syndrome 145–6
- constipation 178
- consultations, common agenda 69–70
- continuous ambulatory peritoneal dialysis (CAPD) 216–19
- continuous subcutaneous infusion of insulin (CSII) 61–4
- coronary angiography, indications 188
- coronary artery bypass grafting (CABG) 188, 189–90
- coronary heart disease risk, in type 1 diabetes 129–30
- cortisol 35  
24 hour measurement 145
- costs of treatment, CSII 62
- cows' milk exposure, effect on risk of type 1 diabetes 3
- CPAP (continuous positive airway pressure), in management of sleep apnoea 210, 211
- creatinine clearance 164
- creatinine levels, raised in RAS blockade 160–1, 164, 196
- critical limb ischaemia 47–50, 58
- Cushing's syndrome 145
- cyclophosphamide, use in insulin resistance syndrome 22, 23
- cystic fibrosis-related diabetes (CFRD) 212–15
- cystic fibrosis transmembrane conductance regulator gene 212
- D**
- dalfopristin resistance 59
- daptomycin resistance 59
- dawn phenomenon 62
- DCCT (Diabetes Control and Complications Trial) 108
- cognitive function 37  
CSII 62  
hypoglycaemic episodes 35  
prevention of retinopathy 168

- DCCT/EDIC (Diabetes Control and Complications Trial/Epidemiology of Diabetes Intervention and Complications) 163
- deafness, MIDD (maternally inherited diabetes and deafness) 15
- death, diabetes as cause 94
- debridement, foot ulcers 200
- Dermagraft 202
- dermatitis herpetiformis 221
- detemir insulin, use during pregnancy 110
- dexamethasone, use with clomiphene citrate 100
- dexamethasone suppression test 145
- dextrose infusion
  - in diabetic ketoacidosis 26–8
  - in hyperosmolar hyperglycaemic state 32
- diabetes
  - diagnostic criteria 17, 18
  - see also* type 1 diabetes; type 2 diabetes
- Diabetes Prevention Trial-Type 1 3–4
- diabetic amyotrophy 93–4
- diabetic ketoacidosis (DKA) 25–6
  - biochemical abnormalities 31
  - management 26–9
- diabetic maculopathy (DMa) 175–7
- Diabetic Retinopathy Study (DRS) 169, 171
- Diabetic Retinopathy Vitrectomy Study 173
- diagnosis, of diabetic ketoacidosis 26
- diagnostic criteria
  - critical limb ischaemia 48
  - diabetes 17, 18
  - hyperosmolar hyperglycaemic state 31
  - impaired fasting glucose 18
  - impaired glucose tolerance 18
  - insulin resistance state 21
  - pre-eclampsia 116
- dialysis 216–19
- dialysis fluids 216–17
- diarrhoea, as cause of diabetic ketoacidosis 26
- diet
  - as cause of hypertriglyceridaemia 126
  - in cystic fibrosis 213
- effect on risk of type 2 diabetes 7–8
- enteral feeding 86–8
- in gestational diabetes 104
- interaction with genes 127
- low-carbohydrate 72–6
- low glycaemic index diets 74
- risk factors for type 1 diabetes 2–3.4
- whole-grain consumption 74–5
- see also* lifestyle intervention
- DIGAMI (Diabetes and Insulin-Glucose Infusion in Acute Myocardial Infarction) studies 41, 45
- dipyridamole
  - value in peripheral arterial disease 192
  - value in stroke prevention 203
- DIRECT (DIabetic RETinopathy Candesartan Trial) 169
- distal sensory peripheral neuropathy (DPN) 149–54
- DPP (Diabetes Prevention Program) 5–6, 19
- capillary blood glucose, value in screening 19
- DPP-IV (dipeptidyl peptidase IV) inhibitors 80
- DPS (Diabetes Prevention Study) 6, 7, 19
- drug-eluting stents 190
- drugs
  - as cause of diabetic ketoacidosis 26
  - as cause of hyperosmolar hyperglycaemic state 30
- dry age related macular degeneration (AMD) 176
- dual ACE inhibitor and ARB therapy 161, 164
- duplex ultrasound scanning, investigation of renal impairment 196
- duration of diabetes, relationship to cardiovascular disease risk 129
- dysbetalipoproteinaemia, familial 126
- dyslipidaemia
  - as cause of erectile dysfunction 112
  - stroke risk 44
- E**
- ECG, indications for coronary angiography 188
- eclampsia 116
  - use of magnesium 117–18
- economic analysis, CSII 62
- ECST (European Carotid Surgery Trial) 205
- educational input, insulin pump therapy 63–4
- educational interventions, adolescent diabetes 70–1
- elderly people 93–6
- embolectomy, limbs 48–9
- ENDIT (European Nicotinamide Diabetes Intervention Trial) 3
- endomysium antibodies, coeliac disease 221
- endothelial function, effect of statins 194
- endurance running 65–8
- enteral feeding 85–8
- enteroviruses, as risk factor for type 1 diabetes 3
- environmental factors in type 1 diabetes 2
- ephedrine, value in orthostatic hypotension 179, 180
- epidemiology, cystic fibrosis-related diabetes 214–15
- eplerenone 157
- erectile dysfunction 111–15, 141, 178
- ertiprotafib 83
- erythropoietin, use in autonomic neuropathy 180, 181
- essential amino acid supplementation, elderly people 96
- ETDRS (Early Treatment Diabetic Retinopathy Study) 138, 169, 171, 172, 173
- EUCLID (EURODIAB Controlled Trial of Lisinopril in Insulin-Dependent Diabetes Mellitus) study 155–6, 168–9
- euglycaemic insulin clamp technique 22
- EURODIAB study, risk factors for autonomic neuropathy 180
- exenatide 38, 80
- exercise
  - as aid to smoking cessation 122
  - effect on autonomic responses 35
  - effect on glucose tolerance 7
  - lack of, as cause of hypertriglyceridaemia 126
  - and type 1 diabetes 65–8
  - see also* lifestyle intervention

- exercise ECG 188, 190  
 exercise programmes, peripheral arterial disease 192  
 ezetimibe 134
- F**  
 familial causes, hypertriglyceridaemia 126  
 family history  
 MODY 13, 14  
 of type 1 diabetes 1, 2, 4  
 of type 2 diabetes 5  
 femoral artery revascularization procedures 49–50  
 fetus  
 complications of gestational diabetes 103, 105, 106  
 effect of ACE inhibitors 108  
 fibrates 126, 134  
 fibre, addition to enteral feeds 86  
 fibrinogen, levels in insulin resistance syndrome 22  
 fibroblasts, abnormalities in diabetic ulcers 199  
 finger-prick blood tests, value in screening 19, 20  
 fish consumption 126  
 flash pulmonary oedema 196  
 flucloxacillin 57, 58  
 fludrocortisone, value in orthostatic hypotension 179, 180, 181  
 fluid intake, in orthostatic hypotension 180  
 fluid replacement  
 in diabetic ketoacidosis 26–8  
 in hyperosmolar hyperglycaemic state 31–3, 34  
 fluid retention, as side effect of thiazolidinediones 82  
 fluoxetine 150  
 folic acid supplementation, pregnancy 108, 110  
 FOOD (Feed Or Ordinary Diet) trials 87  
 foot  
 Charcot neuroarthropathy 182–5  
 critical ischaemia 47–50  
 hot 55–9  
 foot ulceration 199–202  
 predictors of risk 150  
 footwear  
 aiding ulcer healing 58, 59, 201  
 Charcot foot 183, 185  
 foreign bodies, in foot 55, 56  
 fractures, of foot 55, 56, 182, 184–5  
 Framingham Study 125
- G**  
 GABA (gamma-aminobutyric acid), as target for smoking cessation therapies 124  
 gabapentin, value in DPN 151, 152, 153  
 gamma-linoleic acid, value in DPN 152–3  
 gangrene, lower limb 48  
 gastric banding 92  
 gastric paresis 178  
 gastrointestinal malignancy, risk in coeliac disease 222  
 gastrointestinal side effects  
 of aspirin 138  
 of metformin 81  
 of orlistat 90  
 gemfibrozil 126, 134, 204  
 gender differences  
 cardiovascular disease risk 10, 137  
 intima-media thickness, teenagers 130  
 risk of type 1 diabetes 4  
 gene therapy 4  
 gene transfer, VEGF 193–4  
 general anaesthesia, glycaemic control 52  
 genetic factors  
 in coeliac disease 221  
 in diabetic nephropathy 161  
 in hypertriglyceridaemia 126  
 in insulin resistance 135  
 in MODY 14  
 in smoking behaviour 124  
 in type 1 diabetes 2, 3–4, 221  
 in type 2 diabetes 19  
 gestational diabetes 103–6  
 gestational hypertension 116  
 glargine insulin, use during pregnancy 110  
 gliadin, enhanced lymphocyte responses in diabetes 223  
 gliadin sensitivity, coeliac disease 220, 221  
 glibenclamide 77, 94  
 use in gestational diabetes 105  
 use in renal failure 217  
 glicazide 75, 77  
 glicazide MR 94  
 use in renal failure 217  
 value in MODY 15  
 glimepiride 77, 94, 217  
 glipizide 217  
 glitazones 80, 82, 84  
 in prevention of type 2 diabetes 6  
 use by elderly people 95  
 use in cystic fibrosis-related diabetes 213  
 use in polycystic ovarian syndrome 102  
 use in renal failure 217  
 glomerular epithelial cells, abnormalities in albuminuria 157  
 glomerular filtration rate (GFR) 164  
 glucagon 35, 36  
 glucagon-like peptide-1 (GLP-1) 80, 91, 96  
 glucokinase genes, defect in MODY 2 14  
 gluconeogenesis 65, 67  
 glucose content, dialysis fluids 216  
 glucose insulin potassium (GIK) infusion  
 after acute myocardial infarction 41, 42  
 after acute stroke 45  
 glucose metabolism, NMR spectroscopy 67  
 glucose meters, interference from maltose 218  
 glucose tolerance  
 effect of exercise 7  
 effect of weight reduction 89  
 GLUT4 73, 135  
 glutamate receptors, as target for smoking cessation therapies 124  
 gluten-free diet 221, 222–3, 223–4  
 glycaemic control  
 CSII 61–4  
 in cystic fibrosis-related diabetes 213  
 during pregnancy 104–5, 108, 110  
 effect on advancing renal failure 164  
 effect on DPN 150  
 effect of GFD in coeliac disease 223  
 effect on lipid profile 133  
 effect of low-carbohydrate diet 73  
 effect on macrovascular disease 188  
 effect on microalbuminuria progression 155, 156–7, 163  
 effect on peripheral arterial disease 193  
 in peritoneal dialysis 218, 219

- glycaemic control (*cont.*)  
 in prevention of retinopathy 168, 171  
 relationship to stroke risk 44  
 risk of hypoglycaemia 35  
 targets in elderly people 94
- glycaemic index 7–8  
 glycaemic load 74  
 glycaemic vascular injury,  
 pathophysiology 194  
 glycation of connective tissue 182  
 glyceryl trinitrate, value in DPN 151  
 glycogenolysis 65, 67  
 glycoprotein IIb/IIIa antagonists 139  
 gonadotrophin treatment,  
 polycystic ovarian syndrome 100–1  
 gram-positive infections, antibiotic choice 57  
 granulocyte colony-stimulating factor (G-CSF) 59  
 growth, effect of coeliac disease 221  
 growth hormone 35, 146  
 gum, nicotine 122  
 gustatory sweating 178
- H**
- haemodialysis 166  
 haemoglobin carbamylation 217  
 haemoglobin levels, effect of thiazolidinediones 82  
 haemorrhage, risk from aspirin therapy 138  
 HAIR-AN syndrome 22  
 HbA1c  
 effect of CSII 62  
 in peritoneal dialysis 217  
 value in perioperative management 52  
 value in screening 19  
 HDL-cholesterol 133  
 effect of raising levels 204–5  
 effect of torcetrapib 135  
 in insulin resistance syndrome 22  
 headache, after laser photocoagulation 172–3  
 healing process, abnormalities in foot ulcers 199–200  
 heart disease, use of sibutramine 91  
 helical CT 145  
 HELLP (Haemolysis, Elevated Liver enzymes, Low Platelets) syndrome 116  
 Helsinki Heart Study 125, 134  
 heparin, use in hyperosmolar hyperglycaemic state 33  
 hepatic lipase deficiency 126  
 hepatic nuclear factor genes, defects in MODY 14  
 hepatic transaminase levels, prediction of type 2 diabetes 127  
 HERS (Hormone Estrogen-Progestin Replacement Study) 10  
 high-protein diets 73  
 HIV therapy, interaction with PDE-5 inhibitors 112  
 HLA associations  
 coeliac disease 220  
 type 1 diabetes 221  
 homocysteine, levels in insulin resistance syndrome 22  
 Honolulu Heart Programme 125  
 HOPE (Heart Outcome Protection Evaluation) study 6–7, 159, 192, 204  
 hot foot 55–9  
 HOT (Hypertension Optimal Treatment) trial 140–1  
 HPS (Heart Protection Study) 130, 134  
 effect on GFR decline 165  
 peripheral arterial disease 192  
 stroke reduction 204  
 HRT (hormone replacement therapy) 10, 11  
 as cause of hypertriglyceridaemia 126  
 human chorionic gonadotrophin, use in polycystic ovarian syndrome 100  
 human recombinant IGF-1, value in insulin resistance syndrome 22, 23–4  
 hunger 73  
 hydralazine, use in pre-eclampsia 117  
 hyperaesthesia 150  
 hyperaldosteronism 145–6, 147  
 hyperandrogenism 22  
 hypercatabolic states, enteral feeding 86  
 hypercoagulable state 137  
 hyperfiltration 155  
 hyperglycaemia  
 chronic, risk of cognitive impairment 37  
 as complication of PEG feeding 87  
 in diabetic ketoacidosis 26  
 effect on healing process 199  
 hyperosmolar hyperglycaemic state 30–4  
 insulin resistance syndrome 21–4  
 management after acute myocardial infarction 40–2  
 perioperative 52  
 in peritoneal dialysis 216 17  
 hyperinsulinaemia, stroke risk 44  
 hyperkalaemia 29  
 in RAS blockade 160  
 hyperlipidaemia  
 in type 1 diabetes 129–32  
 in type 2 diabetes 133–6  
*see also* hypertriglyceridaemia  
 hyperlipoproteinaemia, type I 126  
 hypernatraemia, in hyperosmolar hyperglycaemic state 31, 33  
 hyperosmolar hyperglycaemic state (HHS) 30–1  
 biochemical abnormalities 31  
 management 31–4  
 hyperparathyroidism, in coeliac disease 221  
 hyperprolactinaemia, as cause of erectile dysfunction 112  
 hypertension 140–2  
 association with obstructive sleep apnoea 208, 210  
 as cause of erectile dysfunction 112  
 choice of hypotensive agent 141–2  
 gestational 116  
 intervention threshold 140–1  
 in microalbuminuria 155  
 in obstructive sleep apnoea 147  
 resistance to therapy 143–4  
 as risk factor for retinopathy 168–9  
 secondary 144–6  
 after stroke 45  
 stroke risk 44, 204  
*see also* antihypertensive therapy; blood pressure; pre-eclampsia  
 hypertriglyceridaemia 125–8  
 pathogenesis 133  
 hypocalcaemia, in coeliac disease 221  
 hypoglycaemia  
 coeliac disease as cause 222  
 during pregnancy 108  
 exercise-induced 67, 68  
 perioperative 52  
 recurrent 34–9

- as side effect of sulphonylureas 77
  - susceptibility in MODY 15
- hypoglycaemia associated
  - autonomic failure (HAAF) 35, 37
- hypoglycaemic awareness 35, 36, 37–8, 179
  - during pregnancy 108
- hypokalaemia, risk in diabetic ketoacidosis 28, 29
- hypophosphataemia
  - diabetic ketoacidosis 28
  - in hyperosmolar hyperglycaemic state 33
- hypotension
  - avoidance of PDE-5 inhibitors 114
  - orthostatic 178, 179–80, 181
- hypothyroidism
  - as cause of erectile dysfunction 112
  - as cause of hypertriglyceridaemia 126
- I
- 123I-metaiodobenzylguanidine imaging 180
- icodextrin, in dialysis fluid 217, 218
- iliac artery stenting 50
- imaging techniques
  - Charcot foot 183
  - renal artery stenosis 196
- immobilization, in treatment of neuroarthropathy 183, 185
- immunisation, effect on risk of type 1 diabetes 3, 4
- immunosuppression, preventive value 2
- immunosuppressive treatment in insulin resistance 22, 23, 24
- impaired fasting glucose (IFG) 19
  - diagnostic criteria 18
- impaired glucose tolerance (IGT) 19–20
  - diagnostic criteria 18
  - prevention of type 2 diabetes 5–8
  - stroke risk 44
- incretin-like molecules 38
- infection
  - as cause of diabetic ketoacidosis 26
  - as cause of hyperosmolar hyperglycaemic state 30
  - hot foot 55–9
- infection control, foot ulcers 200
- infectious diseases, as risk factor for type 1 diabetes 3
- inflammatory markers, prediction of type 2 diabetes 11
- infratentorial infarcts 44
- injection site prior to exercise 66
- insoles 201
- insulin
  - combination therapy with thiazolidinediones 82
  - intraperitoneal delivery 217–18
  - perioperative intravenous regimen 54
- insulin error, as cause of diabetic ketoacidosis 26
- Insulin in Intensive Care Study 41
- insulin-like growth factor-1 (IGF-1) 22, 146
  - human recombinant, use in insulin resistance 22, 23–4
  - IGF-1 receptor affinity, insulin analogues 110
- insulin promoter factor gene defect, MODY 14
- insulin pump therapy 61–4
- insulin receptor substrate-1 polymorphisms 79
- insulin resistance 11, 19
  - association with obstructive sleep apnoea 208
  - association with raised tissue triglyceride levels 127
  - association with smoking 124
  - effect on lipid profile 133
  - effect of tissue lipid accumulation 134–5
  - increase with age 93
  - stroke risk 44
- Insulin Resistance Atherosclerosis Study 127
- insulin resistance state (IRS) 21–4
- insulin secretagogues 77–80
  - see also nateglinide; repaglinide; sulphonylureas
- insulin sensitivity
  - effect of low-carbohydrate diet 73
  - effect of whole-grain foods 74–5
  - racial differences 10
- insulin sensitizers
  - in management of sleep apnoea 211
  - use in insulin resistance syndrome 22
  - see also metformin; thiazolidinediones
- insulin treatment
  - adjustment for exercise 66–7, 68
  - after acute myocardial infarction 41–2
  - after acute stroke 45, 46
  - in coeliac disease 224
  - in cystic fibrosis-related diabetes 213
  - in diabetic ketoacidosis 28
  - in elderly people 95–6
  - in enteral feeding 86–7
  - in gestational diabetes 105
  - in hyperosmolar hyperglycaemic state 33
  - introduction in type 2 diabetes 79, 80
  - in MODY 15
  - perioperative adjustments 52, 53
  - in peritoneal dialysis 217–18, 219
  - during pregnancy 110
  - in recurrent hypoglycaemia 36–7, 38–9
- intensive glycaemic control, effect on retinopathy 168
- intensive insulin therapy, value after stroke 45
- interleukin 6, increased levels in pre-eclampsia 118
- interleukin-6 gene polymorphisms 19
- intermittent claudication 47, 191–4
- intervention threshold, hypertension 140–1
- intima-media thickness, teenagers 130
- intracavernosal alprostadil 113
- intrauterine fetal death, incidence in type 1 diabetes 109
- intrauterine growth retardation in pre-eclampsia 117
- intravenous insulin regimen, perioperative 54
- iron stores 11
- ischaemic heart disease 187–90
  - avoidance of PDE-5 inhibitors 114
  - use of sibutramine 91
- ischaemic ulcers 200–1
- islet cell antibodies 2
- isosorbide dinitrate (ISDN), value in DPN 153
- K
- K<sup>+</sup> channels, role in hypoglycaemic awareness 37–8
- kappa B kinase-, inhibitor 84
- ketoacidosis see diabetic ketoacidosis

- ketoconazole, interaction with PDE-5 inhibitors 112
- ketone bodies 73
- ketonuria/ ketonaemia, in diabetic ketoacidosis 26
- L**
- labetalol, use in pre-eclampsia 117
- lactic acidosis, as side effect of metformin 81
- lacunar strokes 44, 45
- laser photocoagulation 171–3, 174
- for age-related macular degeneration 176
- late onset cystic fibrosis 215
- LDL-cholesterol 133
- effect of torcetrapib 135
- in insulin resistance syndrome 22
- left ventricular dysfunction 141
- leg, critical ischaemia 47–50
- LIFE (Losartan Intervention For Endpoint reduction in hypertension) study 159
- lifestyle intervention
- benefit in MODY 14
- in elderly people 94
- in hypertriglyceridaemia 126, 128
- in obesity 89
- in peripheral arterial disease 192, 193, 194
- in polycystic ovarian syndrome 100, 102
- in prevention of type 2 diabetes 5–6, 7, 8, 19
- linezolid resistance 58–9
- linoleic acids, conjugated 135
- lipid accumulation, effect on tissue insulin resistance 134–5
- LIPID (Long-term Intervention with Pravastatin in Ischaemic Discase) study 134, 204
- lipid-lowering drugs, preventive value 6
- lipid-lowering therapy, value in peripheral arterial disease 192
- lipid profile
- dietary factors 135
- effect of low-carbohydrate diet 73
- effect of poor glycaemic control 133
- effect of ragaglitazar 83
- effect of thiazolidinediones 82–3
- in insulin resistance syndrome 22
- in type 1 diabetes 129
- lipohypertrophy 22
- lipoprotein lipase deficiency 126
- liraglutide 80
- Lisfranc dislocation 183
- lisinopril
- CALM study 161
- EUCLID study 155–6, 168–9
- lispro insulin, use during pregnancy 110
- liver, lipid accumulation 127
- liver X receptor 134–5
- Liverpool Diabetic Eye Study 175
- loop diuretics 156
- low-carbohydrate diets 72–6
- low-carbohydrate feed, enteral nutrition 87
- low glycaemic diet 7–8
- lung function abnormalities, association with diabetes 210–11
- lutein 176
- M**
- macroalbuminuria 130, 163–6
- macrosomia
- in gestational diabetes 103, 105, 106
- in type 1 diabetes 107
- macrovascular complications
- angina in type 2 diabetes 187–90
- foot ulceration 199–202
- peripheral arterial disease 191–4
- prevention in elderly people 94
- renal artery stenosis 195–8
- transient ischaemic attack 203–6
- macrovascular complications risk, relationship to plasma glucose 18
- macular disease 175–7
- macular oedema (MO) 167, 173
- vitreal triamcinolone acetamide 174
- magnesium
- use in eclampsia 117–18
- value after acute stroke 45
- magnesium deficiency 94
- magnesium levels 8, 11
- magnetic resonance angiography (MRA) 145, 147, 196, 198
- maltose, interference with glucose meters 218
- maternal complications, gestational diabetes 103
- maternal death, pre-eclampsia as cause 116
- maturity-onset diabetes of youth (MODY) 13–16
- maxepa 126
- menopause 9–12
- metabolic abnormalities, during PEG feeding 87
- metabolic acidosis, in diabetic ketoacidosis 26, 28
- metabolic syndrome 19, 20, 84, 89
- association with obstructive sleep apnoea 208
- effect of oestrogen 10
- effects of aspirin 139
- hypertriglyceridaemia 125–8
- nutritional management 96
- stroke risk 44
- metanephrine, plasma levels 146
- metatarsal fractures 182, 184–5
- metformin 80, 81–2, 84
- avoidance in renal failure 217
- and cystic fibrosis-related diabetes 213
- in MODY 15
- in polycystic ovarian syndrome 100
- in prevention of type 2 diabetes 5–6, 8
- and surgery 52
- use by elderly people 94–5
- use in cardiovascular disease 41
- use during pregnancy 101, 102
- use with insulin 95
- use with orlistat 92
- use with sibutramine 91
- methyl dopa, use in pre-eclampsia 117
- metronidazole 58
- mexiletene, value in DPN 151
- microalbuminuria 130, 154–8, 159
- ACE inhibitor therapy 159–62
- effect of glycaemic control 163
- risk of autonomic neuropathy 180
- microbiology, foot infections 57, 200
- micronutrient status, relationship to risk of type 2 diabetes 11
- microvascular complications
- advancing renal failure 163–6
- association with IGT 19–20
- autonomic neuropathy 178–81
- background retinopathy 167–70
- Charcot foot 182–5
- in cystic fibrosis-related diabetes 213
- macular disease 175–7
- microalbuminuria 130, 154–8
- painful neuropathy 149–54

- proliferative and pre-proliferative retinopathy 171–4  
 risk in MODY 14, 15  
 value of blood pressure reduction 141
- MIDD (maternally inherited diabetes and deafness) 15
- midrodine 180
- migliitol 95
- mitochondrial diabetes syndromes 15
- Modification of Diet in Renal Disease (MDRD) study 164
- moisturising of skin 58
- MONICA surveys 208
- morphine, value in DPN 153
- mortality benefits, ACE inhibitors 161
- motor neuropathy 58
- MRFIT (Multiple Risk Factor Intervention Trial) 7, 140–1
- MRI scanning, osteomyelitis 57
- MRSA (methicillin-resistant *Staphylococcus aureus*) infections 57, 58
- mucosal insulin, Diabetes Prevention trial-Type 1 3–4
- multiple sclerosis 36
- muscle cells, fuel supply 65
- muscular imbalance 58
- mycophenolate, value in insulin resistance syndrome 23
- myocardial infarction 40–2  
 avoidance of PDE-5 inhibitors 114  
 as cause of hyperosmolar hyperglycaemic state 30  
 secondary prevention, value of aspirin 137  
 smoking cessation 122
- N**
- NASCET (North American Symptomatic Carotid Endarterectomy Trial) 205
- nasogastric feeding, indication after stroke 87
- nateglinide 15, 78  
 use by elderly people 95
- National Cholesterol Education Programme, triglyceride levels classification 125
- neonatal care, type 1 diabetes 110
- nephropathy 130, 154–5, 159  
 advancing renal failure 163–6  
 microalbuminuria 155–8  
 natural history 157  
 slowing of progression 141
- nephrotic syndrome, as cause of hypertriglyceridaemia 126
- nerve growth factor (NGF), value in DPN 153
- nerve stimulation, value in DPN 151
- neural tube defects 108
- neuroarthropathy 182–5
- neuroglycopenic symptoms 36
- neuropathy  
 autonomic 178–81  
 painful 149–54
- neuropathy-modifying drugs 152–3
- neuroprotectant drugs, value after stroke 44–5
- neurosurgery, after acute stroke 44
- NHANES (National Health and Nutrition Evaluation Study) III 93, 210
- niacin (vitamin B3), effect on risk of type 1 diabetes 3
- Niaspan 126
- NICE (National Institute for Health and Clinical Excellence), economic analysis of CSII 62
- nicotinamide, ENDIT (European Nicotinamide Diabetes Intervention Trial) 3
- nicotine replacement therapy (NRT) 122, 123
- nicotinic acid derivatives, value in hypertriglyceridaemia 126, 128, 134
- nifedipine, use in pre-eclampsia 117
- nimodipine, value after subarachnoid haemorrhage 45
- nitrate treatment, contraindication to PDE-5 inhibitors 112
- nitric oxide synthesis, impaired, role in DPN 153
- nitroso compounds, effect on risk of type 1 diabetes 3
- NMR (nuclear magnetic resonance) spectroscopy 67
- non-adherence to treatment 94, 144
- non-arteritic optic ischaemic neuropathy (NAOIN), association with sildenafil 114
- 'non-dipping' nocturnal blood pressure 204
- non-proliferative diabetic retinopathy 168
- non-steroidal anti-inflammatory drugs, effect on efficacy of aspirin 137
- noradrenaline, secretion in hypoglycaemia 35
- nortriptyline, value in smoking cessation 123
- Norwegian Childhood Diabetes Study Group 3
- Nurses' Health Study 10–11
- nutritional requirements, cystic fibrosis 213
- O**
- obesity 89–92  
 association with obstructive sleep apnoea 208  
 as cause of hypertriglyceridaemia 126  
 management in elderly people 96  
 risk of age-related macular degeneration 177  
 sarcopenic 93  
 treatment 6  
*see also* central obesity
- obstetric surveillance, type 1 diabetes 109
- obstructive sleep apnoea (OSA) 147, 207–10, 211
- octreotide 180
- oestrogen, effect on insulin sensitivity 10
- oestrogen replacement 10, 11  
 as cause of hypertriglyceridaemia 126
- office (white coat) hypertension 144, 147
- offloading  
 in treatment of foot ulcers 201  
 in treatment of neuroarthropathy 183, 185
- oligohydramnios in pre-eclampsia 117
- oligomeric feeds 86
- Omacor 126
- omega-3 fatty acids 126, 128, 134
- ophthalmology referral, criteria for 170, 171
- oral glucose tolerance test (oGTT) 18, 19, 20  
 screening after gestational diabetes 105, 106  
 screening for gestational diabetes 104, 106
- oral hypoglycaemic drugs  
 improvement of insulin resistance 81–4

- oral hypoglycaemic drugs (*cont.*)  
 insulin secretagogues 77–80  
 use with enteral feeding 87  
*see also* metformin;  
 sulphonylureas;  
 thiazolidinediones
- oral insulin, Diabetes Prevention  
 trial-Type 1 3–4
- orlistat 89, 90, 92  
 XENDOS study 6
- orthostatic hypotension 178,  
 179–80  
 and carotid artery stenosis 180–1
- osteomyelitis 57, 58, 183, 200
- osteopenia in coeliac disease 221
- otitis externa 94
- ovarian drilling 101
- overt nephropathy 155
- oxprenolol, use in pre-eclampsia  
 117
- P**
- paclitaxel-eluting stents 190
- painful neuropathy 149–54
- pamidronate, value in  
 neuroarthropathy 183
- pancreatitis, as cause of  
 hyperosmolar hyperglycaemic  
 state 30
- panretinal photocoagulation 172
- paraneoplastic syndrome, as cause  
 of autonomic neuropathy 178
- paroxetine, value in DPN 150
- PARP (poly-ADP-ribose  
 polymerase) 3
- PDE (phosphodiesterase)-5  
 inhibitors 112, 114
- PEG (percutaneous endoscopic  
 gastrostomy) feeding 85, 86–7
- penile prostheses 114
- percutaneous coronary intervention  
 (PCI) 188–9  
 restenosis 190
- peri-menopause 10
- perindopril, PROGRESS 204
- perioperative management of  
 diabetes 51–4
- peripheral arterial disease (PAD)  
 47–8, 191–4  
 as cause of foot ulcers 200–1  
 critical limb ischaemia 48–50
- peripheral neuropathy 58  
 Charcot foot 182–5  
 painful 149–54
- peritoneal dialysis 216–19
- pH, in hyperosmolar  
 hyperglycaemic state 31
- phaeochromocytoma 146
- phosphate replacement  
 in diabetic ketoacidosis 28  
 in hyperosmolar hyperglycaemic  
 state 33
- photocoagulation 171–3, 173  
 for age-related macular  
 degeneration 176
- photodynamic therapy 176
- pigment epithelial-derived factor  
 (PEDF) 173
- pioglitazone  
 effect on lipid profile 82–3  
 use by elderly people 95  
 use in polycystic ovarian  
 syndrome 102
- placental abruption 116, 117
- placental vascular insufficiency, role  
 in pre-eclampsia 118
- plasma osmolality, in hyperosmolar  
 hyperglycaemic state 30, 31, 33
- plasmapheresis, use in insulin  
 resistance 22
- plasminogen activator inhibitor-1,  
 levels in insulin resistance  
 syndrome 22
- platelet-derived growth factor  
 (PDGF), value in foot ulcers  
 200, 202
- platelet function, effect of smoking  
 cessation 123
- podocytes, abnormalities in  
 albuminuria 157
- polycystic ovarian syndrome  
 (PCOS) 99–102
- polymeric feeds 86
- polymicrobial infections 57
- polysomnography 147, 208
- polyunsaturated fatty acids,  
 interaction with PPAR- $\alpha$  gene  
 polymorphism 127
- potassium excretion, effect of RAS  
 blockade 160
- potassium levels, hyperosmolar  
 hyperglycaemic state 33
- potassium regimen, diabetic  
 ketoacidosis 28
- PPAR- $\gamma$  gene polymorphism 135
- PPAR- $\gamma$  agonists 126, 134  
 combined PPAR- $\gamma$  and PPAR- $\alpha$   
 agonists 83
- PPAR- $\alpha$  82
- PPAR- $\alpha$  gene polymorphism,  
 interaction with  
 polyunsaturated fatty acids  
 127
- pramlintide 79–80
- pravastatin  
 LIPID study 134, 204  
*see also* statins
- pre-diabetic phase, type 1 diabetes 2
- pre-eclampsia 115–18  
 in type 1 diabetes 107
- pre-term deliveries, type 1 diabetes  
 107, 118
- pregabalin, value in DPN 151, 152
- pregnancy 71  
 as cause of hypertriglyceridaemia  
 126  
 complications of poor glycaemic  
 control 100  
 effect on retinopathy 169  
 gestational diabetes 103–6  
 outlook in cystic fibrosis 215  
 pre-eclampsia 115–18  
 type 1 diabetes 107–10  
 use of metformin 101
- preparation for exercise 66–7
- preparation for pregnancy, type 1  
 diabetes 108
- preservatives, effect on risk of type 1  
 diabetes 3
- prevalence  
 of MODY 14  
 of type 1 diabetes 2
- prevention  
 of retinopathy 168–9  
 of stroke 137, 203–6  
 of type 1 diabetes 1–4  
 of type 2 diabetes 5–8, 90  
 effect of RAS blockade 161
- priapism, as side effect of alprostadil  
 113
- primary hyperaldosteronism  
 145–6, 147
- primary prevention, value of aspirin  
 137–8
- Primary Prevention Project (PPP)  
 138, 139
- PROGRESS (Perindopril  
 pROtection aGainst REcurrent  
 Stroke Study) 204
- proliferative retinopathy 168, 171–4
- proprioceptive loss 182
- prostacyclin infusion, value in  
 critical limb ischaemia 49
- prostaglandin E1, intracavernosal  
 injection 113
- protease inhibitors, interaction with  
 PDE-5 inhibitors 112
- protein kinase C (PKC), role in  
 retinopathy 173

- protein kinase C-, inhibitor  
(ruboxistaurin) 157, 165, 169
- pseudoacromegaly 22
- psychological factors, insulin pump therapy 63
- psychological interventions,  
adolescent diabetes 70–1
- Q**
- QT interval, effect of vardenafil 112
- quinupristin resistance 59
- R**
- racial differences, insulin sensitivity 10
- radionuclide scanning, investigation of renal impairment 196
- ragaglitazar 83
- ramipril, HOPE study 192, 204
- RANKL/osteoprotegerin signalling pathway 184
- recombinant tissue plasminogen activator (rTPA)  
use after acute stroke 44  
use in critical limb ischaemia 49
- recurrence rate, foot ulcers 201
- recurrent hypoglycaemia 34–9
- refeeding syndrome 87
- Regranex gel 202
- renal artery stenosis 144–5, 147, 195–8  
avoidance of RAS blockade 161
- renal disease  
assessment 165  
effect of statins 130  
*see also* microalbuminuria;  
nephropathy
- renal failure 163–6  
hypoglycaemic treatment 217
- renal function monitoring, ACE inhibitor therapy 160–1, 162
- renal glucose threshold, age-related changes 93
- renal papillary necrosis 94
- renin-angiotensin system (RAS)  
blockade 159–62  
effect on microalbuminuria progression 155–6, 157  
effect in renal artery stenosis 195  
in prevention of retinopathy 168–9  
preventive value 6  
stroke reduction 204  
value in advancing renal failure 164
- repaglinide 15, 78  
use by elderly people 95
- resistant hypertension, causes 144–6
- respiratory disease 207–11
- restenosis after PCI 190
- retinopathy 165, 167  
classification 168  
criteria for ophthalmology referral 170  
effect of pregnancy 108–9  
prevention 168–9  
proliferative 171–4  
safety of aspirin 138  
stroke risk 44  
value of blood pressure reduction 141
- revascularization  
in carotid artery stenosis 205  
coronary artery disease 188–90  
in critical limb ischaemia 49–50  
foot ulcers 200–1  
in renal artery stenosis 196–8
- rhabdomyolysis, as side effect of fibrates 126, 134
- RIO (Rimonabant In Obesity) trial 91
- risk factors  
for age-related macular degeneration 177  
for autonomic neuropathy 180  
for coeliac disease 223  
for stroke 43, 44  
for surgery 51  
for type 1 diabetes 2–4
- rituximab, value in insulin resistance syndrome 23
- 'rocker-bottom' foot 183
- rosiglitazone  
effect on lipid profile 82–3  
use by elderly people 95  
use in polycystic ovarian syndrome 102
- rubella vaccination 3
- ruboxistaurin 157, 165, 169
- S**
- St Vincent declaration 107
- sarcopenic obesity 93
- Scandinavian Simvastatin Survival Study (4S) 134, 192, 204
- screening  
for coeliac disease 221, 222, 223  
for diabetes 18–19, 20  
after gestational diabetes 105, 106
- cystic fibrosis patients 213  
for gestational diabetes 103–4, 106  
for distal sensory peripheral neuropathy 150  
for retinopathy 169  
for secondary hypertension 147
- secondary hypertension 144–6, 147
- secondary prevention, value of aspirin 137, 138
- self-management of diabetes  
adolescents 69–71  
perioperative 52
- self-monitoring of blood glucose, during pregnancy 104–5, 108
- sensory loss 150  
in Charcot foot 182
- sertraline, value in DPN 150
- sex-hormone binding globulin, levels in insulin resistance syndrome 22
- SHHS (Sleep Heart Health Study) 208, 210
- shoulder problems 94
- sibutramine 89, 90–1, 92  
value in DPN 151
- side effects  
of amitriptyline 150  
of aspirin 138  
of fibrates 126, 134  
of metformin 81  
of nicotinic acid 126  
of orlistat 90  
of PDE-5 inhibitors 112, 114  
of sibutramine 91  
of sublingual apomorphine 113  
of sulphonylureas 77  
of thiazolidinediones 82
- sildenafil 112  
sudden deaths 114
- silent myocardial infarction 40
- silent phase, diabetic nephropathy 155
- simvastatin 134  
stroke reduction 204  
value in peripheral arterial disease 192  
*see also* statins
- sirolimus-eluting stents 190
- skin, dryness 58
- skin substitutes 202
- sleep apnoea 147, 207–10, 211
- sleep disordered breathing (SDB) 208
- sleep disturbance, association with type 2 diabetes 208

- 'sliding scale' insulin replacement regimen 28
- small-molecule insulino-mimetic drugs 84
- smoking 7, 8, 47, 121–2  
as cause of hypertriglyceridaemia 126  
and pregnancy 110  
risk of age-related macular degeneration 177  
smoking cessation 122–4  
snoring, sleep apnoea 208  
sodium levels  
in hyperosmolar hyperglycaemic state 31, 33  
in PEG feeding 87  
sodium valproate, value in DPN 152
- somatostatin analogues 180
- specialist care, value in diabetic ketoacidosis 26
- spinal cord stimulation, value in DPN 151
- spironolactone, as cause of erectile dysfunction 112
- statins 126, 134  
effect on endothelial function 194  
stroke prevention 204  
use in type 1 diabetes 129–30, 131, 132  
value in advancing renal failure 164, 165  
value in microalbuminuria 157  
value in peripheral arterial disease 192
- Steno Trial 190
- stenting 188–9  
of carotid artery 205  
restenosis rates 190
- steroids, use in insulin resistance 22
- STOP-NIDDM (Study to Prevent Non-Insulin-Dependent Diabetes Mellitus) 6
- stress hyperglycaemia, stroke risk 44
- stress imaging 188
- stroke 44–6  
as cause of hyperosmolar hyperglycaemic state 30  
nutritional support 85, 87–8  
secondary prevention, value of aspirin 137  
stroke prevention 203–6  
stroke risk 43, 44  
structured consultations 69–70
- subarachnoid haemorrhage 44, 45
- sublingual apomorphine 113
- sudden death, risk in autonomic neuropathy 179
- sulodexide 165
- sulphonylureas 77, 80  
secondary treatment failure 7–9  
and surgery 53  
use by elderly people 94  
use in cardiovascular disease 40  
use in cystic fibrosis-related diabetes 213  
use in renal failure 217  
value in MODY 15  
value in prevention of type 2 diabetes 6
- surgery  
after acute stroke 44  
bariatric 91, 92  
carotid endarterectomy 205  
for critical limb ischaemia 48–50  
for foot ulcers 200–1  
perioperative management of diabetes 51–4  
role in neuroarthropathy 183
- SWAN (Study of Women's health Across the Nation) 10
- sweating, abnormalities in autonomic neuropathy 178
- Swedish Obese Subjects Study 91
- sympathectomy, in critical limb ischaemia 49
- symptoms of diabetes, in elderly people 93–4
- symptoms of hypoglycaemia 35, 36
- systolic hypertension, stroke risk 204
- T
- tadalafil 112
- target levels, antihypertensive therapy 142, 144  
in advancing renal failure 166  
in microalbuminuria 155
- teenagers  
adolescent diabetes 69–71  
intima-media thickness 130
- testosterone, levels in insulin resistance syndrome 22
- testosterone deficiency, as cause of erectile dysfunction 112
- thiazide diuretics, as cause of erectile dysfunction 112, 141
- thiazolidinediones 80, 82, 84  
in prevention of type 2 diabetes 6  
use by elderly people 95
- use in cystic fibrosis-related diabetes 213  
use in polycystic ovarian syndrome 102  
use in renal failure 217
- thirst mechanism, age-related changes 93
- thrombocytopenia, in pre-eclampsia 117
- thrombolysis 40  
after acute stroke 44
- thrombosis risk, use in hyperosmolar hyperglycaemic state 33
- thromboxane 137
- thyroid autoimmunity, association with coeliac disease 223
- TNT (Treating to New Target) study 130
- toes, clawing 58
- tolbutamide 77  
use in renal failure 217
- topiramate, use for weight reduction 91
- torcetrapib 135
- total contact casting (TCC) 201
- tramadol, value in DPN 151
- transaminase levels, in thiazolidinedione treatment 82
- transdermal nicotine replacement therapy 122
- transglutaminase 2 antibodies 221
- transient ischaemic attack 203–6
- transurethral alprostadil 113
- trauma, as cause of hyperosmolar hyperglycaemic state 30
- trazodone, value in DPN 150
- treatment failure, insulin secretagogues 78–9, 80
- triamcinolone acetonide, vitreal injection 174
- tricyclic antidepressants, value in DPN 150, 152, 153–4
- triggers for hyperosmolar hyperglycaemic state 30
- triggers for hypoglycaemia 35
- triglycerides 125  
levels in insulin resistance syndrome 22  
*see also* hypertriglyceridaemia
- trogliatone, in prevention of type 2 diabetes 6
- tumour necrosis factor- $\alpha$  (TNF- $\alpha$ ) gene polymorphisms 19

- type 1 diabetes  
   ACE inhibitor treatment 159–62  
   association with coeliac disease 221, 223  
   exercise 65–8  
   hyperlipidaemia 129–32 107–10  
   pre-eclampsia 115–18  
   prevention 1–4  
 type 2 diabetes  
   angina 187–90  
   association with sleep disturbance 208  
   diabetic ketoacidosis 29  
   hyperlipidaemia 133–6  
   introduction of insulin treatment 79, 80  
   prevention 5–8, 90  
   protective role of RAS inhibition 159  
 type A and type B insulin resistance syndrome 21–4
- U**  
 UKPDS (United Kingdom Prospective Diabetes Studies)  
   hypertension 44, 140–1, 204  
   oral hypoglycaemics, use in cardiovascular disease 40–1  
   peripheral arterial disease 192  
   retinopathy 167, 168, 177  
   risk engine 136  
   stroke, mortality 44  
   value of metformin 81–2  
 ulceration of foot 48, 55–9, 199–202  
 ultrasound, investigation of renal impairment 196  
 undernutrition 85  
 uraemic symptoms, effect on appetite 218  
 urinalysis, limitations in MODY 15  
 urinary free-cortisol measurement 145  
 urine testing, value in screening 19, 20
- V**  
 VA-HIT (Veterans Affairs High-Density Lipoprotein Intervention Trial) 134, 204  
 vaccination, effect on risk of type 1 diabetes 3, 4  
 vacuum tumescence 114  
 Valsalva manoeuvre 179  
 vanadium compounds 84  
 vancomycin resistance 58–9  
 vardenafil 112  
 vascular endothelial growth factor (VEGF) therapy, peripheral arterial disease 193–4  
 vascular endothelium, effect of smoking 122  
 vascular reconstructive surgery, critical limb ischaemia 49–50  
 vincristine, as cause of autonomic neuropathy 178  
 viral infections, as risk factor for type 1 diabetes 3  
 visceral obesity *see* central obesity  
 vision, side effect of sildenafil 14, 112  
 vitamin B3 (niacin), effect on risk of type 1 diabetes 3  
 vitamin D deficiency, coeliac disease 221  
 vitamin D status, effect on risk of type 1 diabetes 3, 4  
 vitamins  
   and age-related macular degeneration 176  
   antioxidant HPS 134  
 vitreal injection, triamcinolone acetonide 174  
 vitrectomy 173  
 VLDL (very-low density lipoprotein) 133  
 vomiting, as cause of diabetic ketoacidosis 26
- W**  
 walking programmes, peripheral arterial disease 192  
 walnuts, effect on lipid profile 135  
 warfarin, stroke prevention 203  
 weight gain  
   effect on risk of type 1 diabetes 3, 4  
   effect of sulphonylureas 77  
   effect of thiazolidinediones 82  
   perimenopausal 10  
   as side effect of medication 89  
 weight reduction 89–92  
   effect on glucose tolerance 89  
   effect on lipid profile 133–4  
   in management of polycystic ovarian syndrome 100  
   in management of sleep apnoea 210  
   value of low-carbohydrate diet 73, 75  
   XENDOS study 6  
 wet age-related macular degeneration (AMD) 176  
 WHI (Women's Health Initiative) 10  
 white coat hypertension 144, 147  
 whole-grain consumption 74–5  
 WOSCOPS (West of Scotland Coronary Prevention Study) 127  
 wound debridement, foot ulcers 200
- X**  
 X-ray findings, Charcot foot 183  
 XENDOS (XENical in the prevention of Diabetes in Obese Subjects) study 6, 90
- Z**  
 zeaxanthin 176  
 zinc deficiency 94