

The Art and Science of Diabetes Self-Management Education Desk Reference

Fourth Edition

Associate Editors

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TABLE OF CONTENTS

Acknowledgments vii

S E C T I O N 1

The Art of Diabetes Self-Management Education

| | | |
|------------|---|-----|
| | Section Overview | 1 |
| Chapter 1 | Diabetes Self-Management Education: The Art and Science of Disease Management <i>Sandra Drozdz Burke, PhD, APN-BC, FAADE, FAAN, and Janet Thorlton, PhD, RN</i> | 3 |
| Chapter 2 | The Diabetes Self-Management Education Process <i>Barb Schreiner, PhD, APRN, CPLP, CDE, BC-ADM</i> | 29 |
| Chapter 3 | Theoretical and Behavioral Approaches to the Self-Management of Health <i>Gretchen A. Piatt, MPH, PhD, Bob Anderson, EdD, and Martha M. Funnell, MS, RN, CDE</i> | 85 |
| Chapter 4 | Healthy Eating <i>Cecilia Sauter, MS, RD, CDE, FAADE</i> | 115 |
| Chapter 5 | Being Active <i>Sheri R. Colberg, PhD, FACSM</i> | 139 |
| Chapter 6 | Taking Medication <i>Devra K. Dang, PharmD, BCPS, CDE, FNAP</i> | 169 |
| Chapter 7 | Monitoring <i>Mary M. Austin, MA, RDN, CDE, FAADE, and Margaret A. Powers, PhD, RD, CDE</i> | 189 |
| Chapter 8 | Problem Solving <i>Carolé Mensing, RN, MA, CDE, FAADE</i> | 237 |
| Chapter 9 | Healthy Coping <i>Janis Roszler, LMFT, RD, LD/N, CDE, FAND, and Melissa Brail, LMFT</i> | 255 |
| Chapter 10 | Reducing Risks <i>Ann Constance, MA, RD, CDE, FAADE</i> | 275 |
| Chapter 11 | Diabetes Education Program Management <i>Melinda Maryniuk, MEd, RD, CDE, FADA</i> | 297 |

| | | |
|------------|---|-----|
| Chapter 12 | Transitional Care. | 321 |
| | <i>Amy Hess Fischl, MS, RDN, LDN, BC-ADM, CDE, and Christie A. Schumacher, PharmD, BCPS, BCACP, BC-ADM, CDE</i> | |

SECTION 2

The Science of Diabetes Self-Management Education

| | | |
|------------|---|-----|
| | Section Overview | 341 |
| Chapter 13 | Pathophysiology of the Metabolic Disorder. | 343 |
| | <i>Jane K. Dickinson, RN, PhD, CDE</i> | |
| Chapter 14 | Type 1 Diabetes Throughout the Life Span. | 365 |
| | <i>Carolyn Banion, RN, MN, CPNP, CDE, and Virginia Valentine, APRN, BC-ADM, CDE, FAADE</i> | |
| Chapter 15 | Type 2 Diabetes Throughout the Life Span. | 393 |
| | <i>Eva M. Vivian, PharmD, MS, CDE, BC-ADM, FAADE</i> | |
| Chapter 16 | Nutrition Therapy | 411 |
| | <i>Alison B. Evert, MS, RDN, CDE</i> | |
| Chapter 17 | Exercise Prescription | 437 |
| | <i>Sheri R. Colberg, PhD, FACSM</i> | |
| Chapter 18 | Pharmacotherapy for Glucose Management | 469 |
| | <i>Evan M. Sisson, PharmD, MSHA, CDE, FAADE, and Kristin M. Zimmerman, PharmD, CGP</i> | |
| Chapter 19 | Pharmacotherapy: Dyslipidemia and Hypertension in Persons With Diabetes | 517 |
| | <i>Dave L. Dixon, PharmD, BCPS, CDE, CLS, and John D. Bucheit, PharmD, BCACP, CDE</i> | |
| Chapter 20 | Dietary Supplements for Diabetes: A Focus on Complementary Health Approaches | 551 |
| | <i>Laura Shane-McWhorter, PharmD, BCPS, BC-ADM, CDE, FASCP, FAADE, Skye McKennon, PharmD, BCPS, and Alisyn Hansen, PharmD, BCACP, CDE</i> | |
| Chapter 21 | Complementary Health Approaches and Diabetes Care | 597 |
| | <i>Diana W. Guthrie, PhD, APRN, BC-ADM, CDE, FAADE, FAAN, AHN-BC (retired)</i> | |
| Chapter 22 | Acute Hyperglycemia | 611 |
| | <i>Dace L. Trence, MD, FACE</i> | |
| Chapter 23 | Chronic Complications and Comorbidities | 637 |
| | <i>Connie Hanham-Cain, MSN, RN, CDE, and Cindi Goldman-Patin, RN, MSN, CDE, BA</i> | |

| | | |
|------------|---|-----|
| Chapter 24 | Pregnancy With Diabetes | 657 |
| | <i>Diane M. Reader, RD, CDE, and Alyce Thomas, RD</i> | |
| Chapter 25 | Cardiovascular Complications of Diabetes | 691 |
| | <i>JoAnn Sperl-Hillen, MD</i> | |
| Chapter 26 | Eye Disease Related to Diabetes | 725 |
| | <i>Szilárd Kiss, MD</i> | |
| Chapter 27 | Diabetic Kidney Disease | 745 |
| | <i>Sherry Smith-Ossman, MS, ANP, RNCS, RN, CDE</i> | |
| Chapter 28 | Diabetic Neuropathies | 769 |
| | <i>Aaron I. Vinik, MD, PhD, FCP, MACP, and Etta J. Vinik, MA (Ed)</i> | |
| | <i>Index</i> | 807 |

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SECTION 1

The Art of Diabetes Self-Management Education

Diabetes self-management education (DSME), training, and support is the cornerstone of optimal care and outcomes. A patient-centered, team-based approach to diabetes care provides the essential components from key healthcare professionals, necessary for patients to receive, learn, comprehend, and implement the self-management education that is imperative to control their disease.

Healthcare professionals sometimes focus on their own agendas in providing education and care for patients. This has proven to be futile. People with diabetes have their own agenda—and often it does not match the healthcare professional’s plan. Therefore, healthcare professionals should not be surprised that patients do not achieve the goals put in place for them or follow the instructions or advice they have been given. Since people with diabetes live most of their lives without input from healthcare professionals, it is imperative that the diabetes management plan include the patient’s input. The goals set must be selected by the patient and fit into his or her daily life in order to be achieved. Patients are experts in their own lives, and diabetes educators need to respect them and work with them to meet their needs.

To this end, the focus of this section of the *Desk Reference* is on the educator. Information and skills are provided that diabetes educators can use to help patients solve their own problems to self-manage diabetes. Changes and additions have been made to section 1 to better equip the diabetes educator with the tools needed in the continually changing world of diabetes.

Chapter 1 discusses the impact of diabetes as a major public health concern associated with devastating social and economic burdens. The evolving role of the diabetes educator and changes in the practice of DSME and practice levels are discussed. Chapter 2 focuses on the changes that have occurred within the DSME process, and chapter 3 discusses how educators can individualize health behavior change to help people with diabetes improve their overall health. Chapters 4 through 10 address each of the AADE7 Self-Care Behaviors™, while providing practical tips and strategies to aid patients in attaining their health behavior and diabetes goals. Chapter 4 includes a discussion on the latest updates in nutrition. Chapter 7 has been revised to provide more extensive coverage of the various monitoring parameters enmeshed in diabetes management, in addition to glucose monitoring. Chapter 11 provides useful information for diabetes educators in regard to the business management of DSME programs. Finally, chapter 12 focuses on aspects of transitional care for people with diabetes. This includes transitions of care from youth to adolescence to young adult, as well as transitions within residences, such as home, hospital, and rehabilitation and long-term care facilities.

In this section, chapter authors provide practical information and describe real-world application of effective diabetes education, also known as the *art* of DSME. Through the use of skills and techniques that focus on the patient’s “agenda,” the authors provide approaches that help patients “find it within themselves” to self-manage their diabetes successfully.

SECTION 2

The Science of Diabetes Self-Management Education

Diabetes educators are expected to have a foundation of medical knowledge that encompasses a current understanding of the science of diabetes, its treatment options, and diabetes-related complications. There is a notable difference in the way educators use this information, in comparison with others on the team: The educator not only must understand the science and apply it in decision making, but also must be able to translate such medical concepts and information into messages that can contribute to effective diabetes self-management.

Levels of Learning

As healthcare professionals, diabetes educators develop their expertise in stages, moving from concrete facts to abstract thinking. Competency requires both knowledge and experience, and takes time to acquire. Bloom revised definitions of the levels of abstraction to include remembering, understanding, applying, analyzing, evaluating, and creating. Learning skills progress from remembering, based on simple recall; to understanding, when knowledge is interpreted and translated into a new situation or context; to applying information, concepts, and theories. Analyzing involves the ability to organize and recognize patterns, and evaluating is demonstrated by the ability to assess, discriminate between ideas, and verify the value of theories and evidence. Finally, creating is the ability to relate a body of knowledge into predictions and conclusions.

The chapters in this section show how learning progresses, how information is organized and

integrated into problem-solving strategies. While diabetes educators may recognize this progression in themselves, they need to appreciate their patients' need to apply new and sometimes intricate knowledge to new situations, and apply information to become competent in self-management. Bloom's taxonomy not only provides educators with direction in diabetes self-management education (DSME), but also reminds them how complex this new knowledge can be for them and their patients.

From Medicine to Messaging

For the diabetes educator, the focus in this information-rich section of the *Desk Reference* is on understanding and using medical information to promote behavior change and self-management. These chapters emphasize how this body of scientific and medical knowledge is integrated into the educator's practice setting. In dealing with the constant changes of a chronic progressive disease, the diabetes educator is further challenged to continually modify and adapt self-management education. Case studies are used in many of the chapters to help elucidate the experience of the individual living with the disease and draw out important points for diabetes education. The cases follow the patient through descriptions of the symptoms, explanations of physiology, and treatment options. The authors then discuss how the healthcare team member can use his or her own experience and knowledge to help the individual affected by the disease.

As healthcare professionals, diabetes educators learn about disease by studying the basic science and medical concepts and reading the published literature. As knowledge advances, educators must stay current with the literature and evolution of the practice. Using evidence-based practice, they synthesize the scientific evidence to improve the quality and effectiveness of health care and DSME. The science of medicine is transformed into the art of diabetes education when the educator is able to appropriately incorporate and translate medical concepts into assessments, plans, interventions, and interactions. The educator needs to listen to his or her patients, understand their needs and capacity to understand difficult concepts, and then translate complicated science into actionable information to help them make behavior changes for diabetes self-care.

Diabetes care is a multidisciplinary and interdisciplinary challenge in which healthcare professionals of multiple disciplines collaborate with non-healthcare professionals who all contribute their expertise to provide comprehensive care. The interdisciplinary approach is clearly evident in this section of the book; chapter authors incorporate knowledge from the various health specialties, but frame it in the context of diabetes education. Material is organized into 3 content areas: the disease itself, its therapies and management, and chronic complications. Chapters within each topic area review and summarize current knowledge and relate to points relevant for diabetes education.

Chapter 13 reviews the pathophysiology of diabetes, and understanding the pathophysiology enables the educator to not only interpret the signs and symptoms experienced but be proactive in the way he or she portrays the significance of effective self-management. True to the book's focus, the authors detail how the disease presents in individuals. Chapters 14, 15, and 22 provide an excellent overview of diabetes throughout the life span as well as hyperglycemia as it appears in youths, teenagers, young adults, pregnancy, young adulthood, and later adulthood. Patients often ask why certain things are happening to their bodies, and these chapters provide some answers. With the current interest in and research into alternatives to Western medicine and efforts to blend it with other approaches, chapters 20 and 21 offer valuable insight for healthcare professionals working in DSME for both biologically based practices and nonbiologically based therapies. Whether health professionals use or recommend these therapies is not as relevant in diabetes education as being aware of the alternative remedies people may be using and how those therapies interact with recommended or prescribed treatments. Emerging evidence on the use of such interventions may well change the way DSME is delivered.

Several chapters in this section of the text focus on the core of DSME, integrating food, activity, frequent monitoring, and medication prescription and management. These chapters summarize important technical knowledge pertinent to these self-management issues, and in each chapter, the science is presented, the research is discussed, and implications for diabetes education are highlighted.

The final chapters in this section of the *Desk Reference* remind us of the impact of diabetes, controlled or not, on the health and quality of life of people affected by this disease. Since comorbid conditions often affect the individual with diabetes, other chronic illnesses, specifically hypertension and dyslipidemia, are included.

Each chapter begins with an overview of the various physical and psychological systems affecting the individual with diabetes. Issues of chronic complications, macrovascular disease, pregnancy with diabetes, eye disease, nephropathy, and neuropathy are then dealt with in individual chapters. Current information on primary, secondary, and tertiary prevention is highlighted. The case study approach helps show how specific conditions can affect an individual and how the individual progresses; the cases consider current treatments and recommended therapies.

The Challenge to Change

As the profession of diabetes education continues to move from a strictly content-driven method of teaching to an approach that is individualized and outcome centered, practitioners are urged to recognize that their own methods of learning must change as well. Personal philosophies and experiences, moral and ethical positions, and understanding and knowledge about science and behavior change all color and enrich the patient-provider interaction. The unique work of diabetes education, and its ultimate goal of positively affecting the person with diabetes, requires taking evolving diabetes knowledge and applying it to individuals and populations.

Competence in the science, theory, and research is an underpinning of diabetes education. With this grounding, those responsible for DSME begin the art of their work: using their talents, personalities, and gifts in a therapeutic manner and integrating personal meaning and values into meaningful interactions with patients and clients. Readers are challenged to recognize how they and their patients learn so that they can best apply complex medical information in their delivery of DSME and collaborate with their patients on making appropriate behavior changes to manage their diabetes. The diabetes educator's success in translating, explaining, and interpreting difficult information enables those with diabetes to become experts in their own care.

INDEX

Note: Tables and figures are indicated by italicized page numbers.

A

- A1C, formation of, 638
A1C levels, 7
 aerobic exercise and, 441
 diabetes diagnosis and levels of, 349, 350, 350
 in gestational diabetes mellitus, 683–684
 goals in type 1 diabetes, 366
 hospital admission assessment of, 329
 long-term monitoring, 214–216
 microvascular complications and, 639
 postprandial glucose levels and, 208
 pregnancy and, 674
 targets, 200, 215–216
 testing frequency, 215
 treatment goals, 469, 471
The AADE Guidelines for the Practice of Diabetes Self-Management Education and Training, 79
 DSME process steps, 30
 evaluation/monitoring description in, 69
 implementation process description in, 59
 planning process description in, 50
AADE7 Self-Care Behaviors™, 6, 60, 237, 332, 437
 for autoimmune complications, 643
 barriers to, 242
 chronic complications and, 640–641
 depression and diabetes distress management, 649
 documentation organization and, 69
 in gestational diabetes mellitus, 682–684
 Goal Sheet, 208
 goal-setting and, 43–45
 for hyperosmolar hyperglycemic state prevention, 628, 629, 630
 infection management and, 647
 obstructive sleep apnea and, 648
 oral hygiene and, 645
 patient outcome evaluation and, 72, 73, 74–75
 for pregnancy, 670, 671, 672–676
 for severe hyperglycemia prevention, 621, 622–623
 in type 2 diabetes, 405–406
Abdominal infections, 646
Abnormal pupillomotor response, 793
Academy of Clinical Endocrinologists (ACE), 189
Academy of Nutrition and Dietetics, 5, 30
Acanthosis nigricans, 403, 643
Acarbose (Precose®), 174, 205, 480, 488, 488
Accelerometers, 158
Acceptance, 265
ACCORD study, 358, 693, 694, 706–707, 752
ACCORD-Eye study, 733
Accountable care organizations (ACOs), 16
Acebutolol (Sectral®), 540
Acetaminophen, 180
Acetohexamide, 482
Acquired immune deficiency syndrome (AIDS), 381
Acrochordons, 643
Action planning, 48–49
Active learning, 65
Active lifestyle, promoting, 441
Active listening skills, 40–41
Activities of daily living, assessment and, 37
Activity Pyramid, 156, 157, 158
ACTOplus met, 508
Acute abdomen, 617
Acute kidney injury (AKI), 747
Acute sensory neuropathy (ASN), 779
Adaptation, 265
Addison's disease, 642–643
Adenosine triphosphate (ATP), 443
Administration on Aging, 20
Adolescents
 anxiety and coping in, 269–270
 blood glucose in, 284–285
 blood pressure management in, 708–709
 cardiovascular risk management issues, 708–709
 coping skills, 184
 developmental characteristics and stages of, 380
 developmental issues, 377
 diabetes management in, 323
 driver safety, 382
 dyslipidemia and, 520
 eating habits, 381
 exercise for, 154
 hypertension in, 532, 533
 lifestyle interventions in, 404
 lipid management for, 709
 medication and, 183, 184, 404–405
 metabolic control in, 323
 nutrition for, 121
 nutrition therapy and, 427–428
 pharmacologic interventions in, 404–405, 709
 problem solving and, 248
 psychosocial issues in type 1 diabetes, 380–382
 public health interventions and, 403
 reproductive health issues, 381
 risky behaviors, 381
 social support for, 405
 standards of care and cardiovascular disease, 280
 standards of care and lipids, 280
 teaching and, 57
 transitional care for, 323–328
 type 2 diabetes and, 184, 285, 394, 402–405
Adult learning theory, 65
Adults. *See also* Older adults
 anxiety and coping in, 269–270
 blood pressure and standards of care, 280
 cardiovascular disease and standards of care, 280–281
 lipids and standards of care, 280
 medication for type 1 diabetes, 372
 teaching and, 57–58
 type 1 diabetes in, 386–387
Advanced Carbohydrate Counting, 131
Advanced glycation end products (AGEs)
 macrovascular disease and, 638–639
 oral complications and, 645
Aerobic (cardiovascular) exercise, 142–147, 143–144, 441–442
 carbohydrate requirements during, 450
 metabolic adaptations, 440
 for older adults, 153–154
 perceived exertion ratings, 145
 safety precautions, 143
Affordable Care Act (ACA). *See* Patient Protection and Affordable Care Act
Aflibercept (Eylea®), 730, 734
Afrezza®, 502, 502–503
African Americans, anxiety and coping, 271
AGE receptors (RAGE), 639
Agency for Healthcare Research and Quality, 333, 334
Agile educators, 67–68
Aging, diabetes and, 401
Alaska Natives, anxiety and coping, 271
Albiglutide (Tanzeum®), 178, 179, 205, 491, 492

- Albumin excretion abnormalities, 219, 219
ACE inhibitor and ARBs for, 707–708
- Alcohol
coping and, 257–258
dyslipidemia/cardiovascular disease risk and, 425
glycemia and, 420
hypertension and, 426–427
meal planning and, 133
pregnancy and, 660
- Alcohol-free products, 180
- Alcoholic beverages, 133
- Aldose reductase inhibitors (ARIs), 797
- Aldosterone, 747
- Alirocumab (Praluent®), 525, 525, 704
- Aliskiren (Tekturna®), 539, 539
- Alka-Seltzer® Original, 181
- Allopurinol, 509
- Aloe, 557, 558, 564–565
- Alogliptin (Nesina®), 174, 205, 481, 494, 494, 694
- Alpha 1-receptor blockers, 544, 544
- Alpha-glucosidase inhibitors, 174–175, 205, 471, 480, 488, 488–489
- Alpha-lipoic acid (ALA), 574, 575, 579, 797
- Alternative medicine, complementary vs, 598
- Alternative test sites, 197
- American Academy of Family Physicians, 323
- American Academy of Pediatrics, 323, 327
- American Association of Clinical Endocrinologists (AAACE), 189
- A1C targets, 200, 215–216
on antihyperglycemic management, 471
blood glucose targets, 197, 200
clinical practice recommendations, 640
educational support from, 369
on inpatient hyperglycemia concerns, 624
on obesity management, 471
self-monitoring of blood glucose frequency recommendations, 201
thyroid screening recommendations, 224
treatment goals, 469
type 1 diabetes diagnosis recommendations, 367
type 2 diabetes management algorithm, 469, 471, 472, 500, 640
- American Association of Diabetes Educators (AADE), 5, 30, 327, 412
accreditation programs, 7
on continuous glucose monitoring, 212
insulin information from, 178
- American Cancer Society, 359, 701
- American College of Cardiology (ACC), 424, 519, 752
- American College of Physicians, 323, 327, 624
- American College of Sports Medicine, 454, 455
- American Diabetes Association (ADA), 5, 30, 189, 327, 345, 359, 701, 770
A1C targets, 215–216
accreditation programs, 7
on antihyperglycemic management, 471
Approaches to Glycemic Treatment, 469
aspirin recommendations, 707
blood glucose targets, 197, 200
blood glucose testing recommendations, 200
blood pressure monitoring guidelines, 216–217
clinical practice recommendations, 640
continuous glucose monitoring guide, 212
diabetic neuropathy evidence-grading system, 777
educational support from, 369
exercise prescription guide, 454
gestational diabetes mellitus recommendations, 677
graded exercise test criteria, 458, 459
on injection aids, 177
on inpatient hyperglycemia concerns, 624
insulin information from, 178
medical nutrition therapy goals for prediabetes and diabetes, 118
mental health referral indications, 649
on nonnutritive sweeteners, 418
on obesity management, 471
on psychological and social assessments, 223
self-monitoring of blood glucose frequency recommendations, 201
standards of care, 639
Standards of Medical Care, 97, 703, 709
transition recommendations/guidelines, 326
treatment goals, 469
Workgroup on Hypoglycemia, 505
- American Geriatric Society, 640
- American Heart Association (AHA), 418, 424, 519, 701, 752
- American Sign Language (ASL), 67
- American Society of Internal Medicine, 323
- Americans with Disabilities Act, 66–67
- Amiloride (Midamor®), 535
- Amlodipine (Norasc®), 542, 706
- Amylin, 348
- Amylin analogs, 178–179, 205, 495, 495–496
- Amyotrophy, 795–796
- Anabolic steroids, 509
- Androgens, 509
- Anemia, in chronic kidney disease, 753
- Anger, 265
- Angioplasty, patient preparation for, 711–712
- Angiotensin, 747
- Angiotensin receptor blocker (ARB), 220, 537–538, 538, 706
complication management and, 640
increased urinary albumin excretion and, 707–708
- Angiotensin-converting enzyme (ACE), 531
- Angiotensin-converting enzyme inhibitor (ACE inhibitor), 220, 536, 536–537, 706
complication management and, 640
increased urinary albumin excretion and, 707–708
- Angiotensin-I (AT-I), 531
- Angiotensin-II (AT-II), 531
- Animals. *See* Pet therapy
- Anion gap, 620
- Ankle-brachial index, 714–715
- Anorexia nervosa, 258
diagnostic criteria, 259
nutrition for, 122
- Anticoagulants, 509, 707
- Antidiuretic hormone (ADH), 746
- Antifungal products, 182
- Antihyperglycemic management approach to, 471
medications for, 479, 479–481, 482–491
- Anti-inflammatory agents. *See also* Nonsteroidal anti-inflammatory drugs
cataract treatment and, 727
- Antiplatelet therapy, 218, 707
- Anti-vascular endothelial growth factor (anti-VEGF), 727, 729–730, 735, 737
- Anxiety, 257, 257, 269–271
hypoglycemia and, 208
needle, 382
- Apnea-hypopnea index (AHI), 647
- Appreciative coaching, 36
- Areas to improve in diabetes education (AIDE), 312
- Aromatherapy, 603
- Art therapy, 603
- Asian Americans, anxiety and coping, 271
- Aspart (Novalog®), 205, 497, 497, 502, 674
- Aspirin, 181, 510
appropriate use of, 706–707
instruction on use of, 707
standards of care, 281
- Assessment
activities of daily living and, 37
annual, for type 1 diabetes, 385
of atherosclerotic cardiovascular disease risk, 518–519
beginning, 33, 35–36
of blood glucose monitoring, 210
of cardiovascular risk, 518–519, 695–697
caregivers and, 36
closing, 42

- cognitive, 223
conducting, 33
critical thinking in, 38
cultural considerations in, 37
data for, 34
DSME/S step, 30–42
of education needs and readiness to change, 38, 39
effective, characteristics of, 36–38
family and, 36
goal setting and, 45–46
at hospital admission, 329, 330
of hyperglycemia, 615–618, 626–627
of hypoglycemia risk, 444
initial, 216
nutrition, 126–127
practice setting, 37
skills for, 38–40
strategies for, 40–42
tips for quick, 35
- Assessment, for coping
chronic disorders, 264–265, 265
developmental age and stage, 262–264
family system roles and responsibilities, 264
financial resources and insurance, 264
psychosocial factors of social support, 264
- Association for the Advancement of Medical Instrumentation, 217
- Atenolol (Tenormin®), 540
- Atherosclerosis, 692
- Atherosclerotic cardiovascular disease (ASCVD), 517
risk assessment for, 518–519
risk calculator for, 696, 696, 752
- Atorvastatin (Lipitor®), 522, 523, 703
- Atrophic gastritis, 642
- Audiovisual materials, 64–65
- Australasian Paediatric Endocrine Group, transition recommendations/guidelines, 327
- Australian Diabetes Society, transition recommendations/guidelines, 327
- Autoimmune disorders, 383
self-care behaviors, 643
thyroid, 641
type 1 diabetes and, 384, 386, 641
- Autoimmune thyroid disease, 224, 641
- Autoimmune-related complications, 641–643
- Autoimmunity, in type 1 diabetes, 354–355
- Automated response system (ARS), 246
- Autonomic dysfunction, exercise tolerance and, 785–786
- Autonomic nervous system (ANS), 771
- Autonomic neuropathy (AN), 182, 221–222, 222, 770
bladder dysfunction and, 792
- cardiac, 786, 788
clinical features, diagnosis, and treatment, 787
exercise modifications for, 151–152
exercise prescription and, 458–459
exercise response and, 789
gastrointestinal disorders and, 789–791
pupillary and visceral response and, 793–795
sexual dysfunction and, 649–650, 791–792
sudomotor dysfunction and, 792–793
symptoms, 786
treating underlying causes, 789
- Autonomy motivation, 96
- Autonomy support, 96
- Avandamet, 508
- Avandaryl, 508
- Avoidance coping, 266–267
- Ayurvedic medicine, 601
- Azathioprine (Imuran®), 796
- Azilsartan (Edarbi®), 538

B

- Background insulin. *See* Basal insulin
- Balance exercises, for older adults, 154
- Bargaining, 265
- Bariatric surgery, 423
cardiovascular disease management and, 701–702
- Barriers
common problem areas and, 240–241
to diabetes education access, 14–15
discharge counseling and, 334
identifying and addressing, 67
to medication use, 171
to physical activity, overcoming, 437
to risk reduction, 288–289
to self-care behaviors, 242
to self-monitoring of blood glucose, 193, 195, 196–199
types of, 239–240
- Basal insulin, 205, 335, 473, 500
- Baseline evaluation, 189
- Beck Depression Inventory, 649
- Behavior change, 120
applying, 100–101
empowerment-based protocol for, 98–99
for healthy eating, 128–130, 129, 130
motivational interviewing approach to, 103–106
patient empowerment and theories for, 98
theoretical approaches to, 88–97
theory and approach combination for, 88
- Behavioral objectives, 48
characteristics of, 47
- Behavioral Risk Factor Surveillance System (BRFSS), 15, 56, 645
- Behavior-change rules, 161
- Benazepril (Lotensin®), 536
- Benfotiamine, 575, 579–580
- Berberine, 558, 565
- Berlin Questionnaire, 226, 647–648
- Beta 1-selective receptor blockers, 540
- Beta cells, insulin secretory capacity, 355
- Beta-adrenergic antagonists, 446, 510
- Beta-blockers, 446, 539–541, 540
- Betaxolol (Kerlone®), 540
- Bethanechol (Urecholine®), 792
- Biguanides, 174, 205, 480, 485, 485–486.
See also Metformin
- Bile acid resins, 527–528, 528
- Bile acid sequestrants, 175
- Binge eating disorder (BED), 258
diagnostic criteria, 259
nutrition for, 122
- Bio-field therapies, 605–606
- Bismuth subsalicylate (Pepto-Bismol®), 181
- Bisoprolol (Zebeta®), 540
- Bitter melon, 559, 565–566
- Bladder dysfunction, 792
- Blindness, 725
- Blood glucose. *See also* Self-monitoring of blood glucose
blurring of vision and, 730
cataracts and, 727
in children and adolescents, 284–285, 285
chronic kidney disease and, 751–752, 753
complication reduction and control of, 396
decision tree for monitoring, 247
factors raising or lowering, 207
gestational diabetes mellitus and monitoring, 683
goals during pregnancy, 673
goals in type 1 diabetes, 366
hemodialysis and, 761
hospital admission assessment of, 329
interpreting records, 205–206
kidney transplantation and, 762–763
medication effects on, 205
peritoneal dialysis and, 762
physical activity and, 446–448
postprandial, 207–208
pregnancy, 287
problem-solving for monitoring, 209
self-monitoring, 287
targets, 197, 199, 200, 624
therapeutic goals, 284–285, 285
timing of testing, 206
- Blood glucose meters, 369–370
accuracy of, 193, 194
care of, 196
coding, 196
correctional institutions and, 337

- data logs, 369
 - data management systems and, 209–210
 - obtaining adequate sample, 196–197
 - selecting for self-monitoring, 191–193
 - teaching operation of, 194
 - Blood glucose monitoring, 369
 - assessment of, 210
 - physical activity and, 452–453
 - Blood pressure. *See also* Hypertension
 - children, 285
 - chronic kidney disease and, 752, 753
 - cuff sizing, 217
 - diabetic retinopathy and, 732–733
 - goals for, 705
 - management in children and adolescents, 708–709
 - measurement technique, 705
 - monitoring, 216–217
 - procedures and tips for, 217
 - self-monitoring of, 287
 - standards of care, 280
 - support for achieving goals, 706
 - Blood tests, for diabetic kidney disease, 751
 - Blurring of vision, 730
 - Board Certified–Advanced Diabetes Manager (BC-ADM), 8
 - Body composition, 438
 - Body mass index (BMI), 344
 - in pregnancy, 658
 - Bolus insulin, 500
 - Bone and mineral metabolism abnormalities, 753–754
 - Bone integrity, 438
 - Bovine serum albumin (BSA), 354
 - Bowman's capsule, 746
 - Branch retinal vein occlusion (BRVO), 729
 - Breastfeeding, 661, 662
 - British Hypertension Society, 217
 - Bromocriptine (Cycloset®), 175
 - Bromocriptine mesylate (Cycloset®), 481, 489, 489–490
 - Bulimia nervosa, 258
 - diagnostic criteria, 259
 - nutrition for, 122
 - Bupropion, 702
 - Business plan, self-management education program, 301–302, 302–303
 - Buy-in, obtaining from patient, 44
- C**
- Calcitonin, 747
 - Calcitriol, 224, 759
 - Calcium, 746–747
 - Calcium channel blockers, 510, 541–544, 542, 706
 - Canagliflozin (Invokana®), 175, 205, 481, 490, 490–491, 509
 - Cancer
 - aspirin use and, 707
 - diabetes and risk of, 359, 359
 - Candesartan (Atacand®), 538
 - Cannabinoids, 349
 - Captopril (Capoten®), 536
 - Carbohydrate counting, 131, 374
 - Carbohydrates
 - aerobic activity requirements, 450
 - counting, 131
 - gestational diabetes mellitus and, 683
 - glycemia and, 415–418
 - insulin-to-carbohydrate ratios, 414
 - low-carbohydrate eating, 124, 125
 - physical activity responses and, 443–444
 - physical activity strategies and, 450–452
 - pregnancy and guidelines for, 672
 - Cardiac autonomic neuropathy, 786, 788
 - Cardiac catheterization, patient preparation for, 711–712
 - Cardiac denervation syndrome, 788–789
 - Cardiometabolic risk, 692, 693
 - Cardiovascular autonomic reflex tests, 788
 - Cardiovascular complications, 691
 - Cardiovascular disease (CVD)
 - alcohol and, 425
 - aspirin use and, 707
 - atherosclerotic, 517–519, 696, 696, 752
 - chronic kidney disease and, 745
 - diabetes and risk for, 217
 - diabetes relationship to, 692–695
 - epidemiology in diabetes of, 692
 - exercise modifications for, 150
 - exercise prescription and, 458
 - hyperosmolar hyperglycemic state treatment and, 627
 - lifestyle management for, 701–702
 - modifiable risk factors, 698
 - nonmodifiable risk factors, 697–698
 - nutrition therapy and, 423–425
 - pathogenesis in diabetes of, 358–359
 - physical activity and, 425
 - resistance training with, 148
 - risk-reduction strategy for, 697–698, 699, 700
 - safety considerations for exercise, 149–150
 - standards of care, 280–281
 - type 1 diabetes and, 692, 695
 - type 2 diabetes and, 396
 - Cardiovascular events (CV events)
 - aspirin for primary prevention of, 707
 - diabetes and risk of, 692–693
 - glycemic control and prevention of, 693–694
 - type 1 diabetes and risk of, 692
 - Cardiovascular fitness, 438
 - Cardiovascular risk
 - aspirin use and, 707
 - assessing, 518–519, 695–697
 - children and adolescent issues, 708–709
 - drug effects on, 694–695
 - multifactorial treatment approach for, 698, 699, 700
 - nontraditional and emerging risk factors, 708
 - nontraditional therapies, 708
 - Cardiovascular risk calculators, 695–696, 696
 - explaining results to patients, 697
 - Cardiovascular risk factors, 691, 692, 693
 - Caregivers, assessments and, 36
 - Carvedilol (Coreg®), 540
 - Catalyst to Better Diabetes Care Act of 2009, 16, 21
 - Cataracts, 726–728
 - Catecholamines, 347
 - Celiac disease, 384, 642, 642
 - nutrition and, 122–123
 - Cellulitis, 644
 - Centers for Disease Control and Prevention (CDC), 16, 21, 394
 - on A1C and microvascular complications, 639
 - on diabetic foot ulcers, 770
 - on listeriosis during pregnancy, 660
 - National Diabetes Prevention Program, 16
 - Centers for Medicare and Medicaid Services (CMS), 18, 60, 625
 - diabetes testing mail order program, 192
 - Central retinal vein occlusion (CRVO), 729–730
 - Central-acting alpha-adrenergic agonists, 544–546, 545
 - Cerebral edema, 621
 - Cerebrovascular accident (CVA), causes, 712
 - Cerebrovascular disease, 712–713
 - Certificate of Distinction for Inpatient Diabetes Care, 63
 - Certified Diabetes Educator® (CDE), 8
 - Charcot joint deformities, 648
 - Charcot neuroarthropathy, 778
 - Chest infections, 645–646
 - Children
 - anxiety and coping in, 269–270
 - blood glucose in, 284–285, 285
 - blood pressure management in, 708–709
 - cardiovascular risk management issues, 708–709
 - complementary health approaches for, 599–600
 - coping skills, 184
 - developmental issues, 377
 - diabetes management roles, 379
 - diagnosis in, 350–351, 402–403, 404
 - dyslipidemia and, 520
 - exercise for, 154
 - exercise prescription, 456–457
 - in foster care/residential settings, 328

- goal setting and, 45
hypertension in, 532, 533
insulin injection considerations, 371
insulin resistance in, 403
insulin use in, 183, 184, 405
lifestyle interventions in, 404
lipid management for, 709
medication and, 183, 184, 404–405
medication regimen and dosage, 371–372
nutrition for, 121
nutrition therapy and, 427–428
pharmacologic interventions in,
404–405, 709
problem solving and, 248
public health interventions and, 403
risk factors and, 402–403
school-aged, 322–323, 377, 378–379
self-monitoring of blood glucose
needs, 198
social support for, 405
standards of care and cardiovascular
disease, 280
standards of care and lipids, 280
statins and, 709
teaching and, 57
type 2 diabetes and, 121, 184, 285, 394,
402–405
- Children's Health Insurance Program
(CHIP), 17, 18, 20
- Chinese medicine. *See* Traditional Chinese
Medicine
- Chiropractic medicine, 604
- Chlorpropamide, 205, 482
- Chlorthalidone (Chlorpres®), 534, 534, 706
- Cholesterol, 414–415, 424, 517–518
chronic kidney disease and, 752
guidelines for, 519–520
monitoring, 217–218
- Cholestyramine (Questran®), 510, 528, 528
- Choose My Plate, USDA, 130–131, 131
- Choose Your Foods*, 414, 415
- Choose Your Foods: Food Lists for Diabetes*, 131
- Choose Your Foods: Plan Your Meals*, 131
- Chromium, 559, 566–567
- Chronic Care Model (CCM), 21, 22
empowerment approach and, 103
- Chronic complications, 637, 639–640
- Chronic conditions, 18
- Chronic disease, normalization and, 42
- Chronic disorders, coping, 264–265, 265
- Chronic inflammatory demyelinating
polyneuropathy, 796
- Chronic kidney disease (CKD), 220,
745, 747
dietary manipulation for, 757, 758
hypertension medications and, 757
insulin and, 757
oral medications and, 755, 755–756, 757
pharmacologic interventions, 757, 759
prevention and delay of, 751–754
screening and detection, 751
stage 1–4 treatment, 754–755, 757,
758, 759
stage 5 treatment, 760–763
stages of, 748
treatment of, 754–763
- Chronic renal insufficiency, 747
- Chronic sensorimotor neuropathy, 780
- Cimetidine, 510
- Cinnamon, 560, 567–568
- Clarifying, as active listening skill, 40
- Claudication, 778
- Clinically significant macular edema
(CSME), 733, 734
- Clonidine patch (Catapres-TTS®), 545
- Clonidine tablets (Catapres®), 545
- Clopidogrel, 707
- Clostridium welchii*, 646
- Clozapine (Clozaril®), 180
- Coaching, appreciative, 36
- Coding, as self-monitoring of blood glucose
barrier, 196
- Cognitive assessment, 223
- Cognitive impairment, 247
- Cognitive overload, 64
- Cognitive science, educational applications
of, 65–66
- Colesevelam (Welchol®), 175, 528, 528
- Colestipol (Colestid®), 528, 528
- Collaboration, in problem solving, 243
- Collecting duct, 746
- Colon cancer, 707
- Color fundus photography, 737
- Colorectal cancer, 707
- Combination oral medications, 507,
508–509
dyslipidemia management with, 529–530
- Commission on Key National Indicators, 20
- Common obstacles, in regimen adherence, 40
- Common senile cataract, 727
- Communication
DSME, 307–308
medication-taking behavior and, 171–172
- Community approaches to diabetes
awareness, 68–69
- Community Living Assistance Services and
Supports (CLASS), 21
- Comorbidities, monitoring for, 216
- Competencies for Diabetes Educators and
Diabetes Paraprofessionals* (AADE), 80
goal-setting process description in, 42
implementation criteria, 60
planning process description in, 50
- Complementary and alternative medicine
(CAM), 551. *See also* Complementary
health approaches
concerns about, 554–556, 555
cost increases, 556
“other ingredient” concerns, 556
product variability, 555
side effects and drug interactions, 555
standardization lacking, 555–556
supplements, 554–555
- Complementary health approaches, 597
alternative and integrative vs, 598
aromatherapy, 603
art therapy, 603
Ayurvedic medicine, 601
bio-field therapies, 605–606
case study, 552
for children, 599–600
chiropractic medicine, 604
concerns about, 598–599
conventional medicine delays, 599
dietary supplements, 551–586
education about, 600
electromagnetic-based therapies, 606
energy therapies, 605–606
guided imagery, 603
homeopathy, 602
hypnosis, 603
impacts of, 598
laughter, 604
massage, 604
meditation during pump therapy, 599
mind and body–based methods,
604–605
mind-body intervention, 603–604
mindfulness, 603–604
modality variability, 598–599
Native American medicine, 602
naturopathy, 602
osteopathic medicine, 602
patient support, 600
pet therapy, 604
Qigong, 605
reflexology, 605
relaxation, 604
research, 601, 606
scientific study lacking, 599
Tai Chi, 605
Traditional Chinese medicine, 602–603
whole-body medical systems, 601–603
yoga, 605
- Compliance approach, 61, 61–62
- Complications
autoimmune-related, 641–643
cardiovascular, 691
of cataracts, 727–728
chronic, 637, 639–640
dermatological, 643–644
diabetes educator role and, 360
diabetic ketoacidosis and preventing,
620–621
dietary supplements for, 574, 575–578,
579–584
fetal, 668–670

- of gestational diabetes mellitus, 682
 - hyperosmolar hyperglycemic state and
 - prevention of, 628
 - maternal, 668
 - microvascular, 639
 - monitoring for, 216
 - in older adults, 401
 - oral, 645
 - pathogenesis in diabetes of, 358
 - physical activity and, 150–152
 - of poor glycemic control, 381–382
 - pregnancy and, 675
 - rates of, in type 2 diabetes, 638
 - reducing in type 2 diabetes, 396
 - reducing risks for, 360
 - self-care behaviors for managing, 640–641
 - standards of care and, 639–640
 - tissue damage mechanisms, 638–639
 - Conditioning phase, of exercise, 142
 - Confidence rulers, 161
 - Congenital malformations, 668–669, 669
 - Congestive heart failure (CHF), 401, 715
 - Consensus Statement on Glucose
 - Monitoring, 189
 - Contact heat-evoked potentials (CHEPs), 774
 - Continuous ambulatory peritoneal dialysis (CAPD), 761
 - Continuous cyclic peritoneal dialysis (CCPD), 761
 - Continuous glucose monitoring (CGM), 193, 211–213, 369–370, 446–447
 - benefits and risks, 212
 - data management systems and, 209–210
 - personal vs professional, 212
 - in pregnancy, 673
 - sleep apnea evaluation and, 647
 - Continuous positive airway pressure (CPAP), 647
 - Continuous quality improvement (CQI), 70, 307, 315–316
 - Continuous subcutaneous insulin infusion (CSII), 373, 445, 501
 - Control solution, 196
 - Conventional medicine, delays of, 599
 - Conversation Maps®, 246
 - Cooking, 132–133
 - Cool-down phase, of exercise, 142
 - Coping, 262
 - with anxiety, 257, 257
 - case study, 271
 - with depression, 255–256, 257
 - with diabetes, drugs, and alcohol, 257–258
 - outcomes, 272
 - relapse prevention strategies, 269
 - special populations considerations, 269–271
 - with stress, 257, 257
 - stress management, 267–269
 - styles of, 265–267
 - therapist referral, 256
 - Coping skills, 51–52, 406
 - for children and adolescents, 184
 - for gestational diabetes mellitus, 684
 - pregnancy and, 675–676
 - CoQ10, 576, 580–581
 - Corneal confocal microscopy, 774
 - Coronary artery disease (CAD)
 - aerobic exercise and, 441
 - aspirin use in, 707
 - presentation, 709
 - screening criteria, 709–710
 - warning signs, 710
 - Coronary heart disease (CHD), 518, 519
 - aspirin use in, 707
 - Correctional institutions, 337–338
 - Cortical cataract, 727
 - Corticosteroids, 510
 - Cough and cold products, 180
 - Counseling
 - cross-cultural, 126
 - in diabetic retinopathy care, 738
 - discharge, 333–335, 334
 - preconception, 666–667
 - pregnancy, 286–287
 - Counterregulatory hormones, 347
 - Counting Carbs: Getting Started*, 131
 - Cranial neuropathies, 795
 - Critical thinking, 38
 - Cross-cultural counseling, 126
 - Cultural competence, healthcare service
 - delivery and, 56, 56
 - Cultural considerations
 - in assessment, 37
 - education plan and, 55–57
 - in goal setting, 45
 - physical activity, 154–155
 - problem solving and, 248
 - Culture, nutrition assessment and, 126–127
 - Curriculum content, 60
 - Cystopathy, 792
 - Cytochrome P450, 182
- D**
- D5 terminology, 698, 700
 - Daily review, 38
 - Dapagliflozin (Farxiga®), 175, 205, 481, 490, 490–491, 509
 - DASH eating plan, 425–426, 701
 - Data collection tools, 76
 - Data logs, 369
 - Data management systems, 209–210
 - Decision trees, 246, 247
 - Decongestants, 180
 - Degludec (Tresiba®), 497, 498, 499, 674
 - Dehydration
 - diabetic ketoacidosis and, 617
 - hyperosmolar hyperglycemic state and, 625
 - profound, 626
 - Delivery, diabetes care during, 676
 - Denial, 265
 - Dental care
 - preventive care services, 286
 - products, 182–183
 - Dental disease, 645
 - Department of Health and Human Services, US, 19, 20–21
 - Dependent rubor, 714
 - Depression, 223, 257, 265, 648–649
 - coping with, 255–256
 - Dermatologic products, 182
 - Dermatologic conditions, of diabetes, 643–644
 - Description, theory and, 87
 - Designated health providers, 18
 - Detemir (Levemir®), 205, 445, 497, 498, 499, 502, 674
 - Deviation review, 38
 - DEX implant, 735
 - Dexamethasone, 729, 735
 - DiaBEATers®, 246
 - Diabetes and Healthy Eyes Toolkit, 90
 - Diabetes Care Program of Nova Scotia, transition recommendations/guidelines, 327
 - Diabetes distress, 648–649
 - Diabetes education, 5–6
 - barriers and facilitators to access to, 14–15
 - diabetic neuropathy and, 770–771, 776, 778
 - diabetic neuropathy mimics and, 778
 - in first week after type 1 diagnosis, 368–369
 - for healthy eating, 125–128
 - problem solving in, 242–244
 - in promoting healthy eating, 125–128
 - theory application in, 86–88
 - Diabetes educators, 7–12
 - Affordable Care Act and, 16–22
 - blood glucose monitoring assessment tool for, 210
 - changing paradigms for, 22–23
 - clinical problem solving by, 243
 - competencies, 13–14, 14
 - complication risk reduction and, 360
 - continuous glucose monitoring role of, 213
 - coping role of, 262
 - discharge counseling and, 333–335, 334
 - healthy eating and, 116, 117–118
 - levels of practice, 9, 10–11, 12
 - patient conflict with, 244

- role at diagnosis of type 1 diabetes, 367–368
- self-monitoring of blood glucose and, 191, 208–209
- sexual dysfunction role, 650
- Diabetes mellitus, 3
 - aging and, 401
 - baseline evaluation of, 189
 - cancer risk and, 359, 359
 - cardiovascular disease epidemiology and, 692
 - cardiovascular disease pathogenesis in, 358–359
 - cardiovascular disease relationship to, 692–695
 - classification of, 351–353
 - diagnostic criteria, 349–351, 685
 - dietary supplements, 551–586
 - epidemiology, 344, 344–345
 - fetal complications, 668–670
 - financial burden, 4–5
 - global impact, 4
 - labor and delivery and, 676
 - maternal complications, 668
 - medical nutrition therapy for, 118
 - parent and child roles in management, 379
 - physical activity effect on, 441–442
 - postpartum care and, 676–677
 - preconception care and education, 662–664
 - screening and diagnostic testing, 352
 - stress and, 359
 - treatment goals, 469–470
- Diabetes paraprofessionals
 - competencies, 13–14, 14
 - provider levels, 13
- Diabetes Prevention Program (DPP), 19, 356, 439, 685
- Diabetes Report Card, 19, 21
- Diabetes scleroderma-like syndrome, 643–644
- Diabetes self-management education (DSME), 297, 299
 - advisory group for, 304
 - assessment, 298
 - behavior change, 128–130, 129, 130
 - budget, 304, 305
 - business plan, 301–302, 302–303
 - communication, 307–308
 - community needs, 299–300
 - curriculum content, 306
 - curriculum for, 304
 - evaluation, monitoring, and documentation, 311–317, 312, 314, 315–316
 - expectations and guidelines, 298
 - front-end operations, 308
 - goal setting, 301–302
 - for healthy eating, 125–128
 - IT needs, 306
 - marketing for growth, 309–310
 - metrics and data, 308–309, 314
 - NSDSMES standards, 310, 310
 - ongoing support resources, 300–301
 - planning, 302, 304
 - in promoting healthy eating, 125–128
 - resource availability, 298–299, 300
 - space needs, 304, 306
 - staff, 306, 307
- Diabetes self-management education and support (DSME/S), 5, 6, 22, 189, 297
 - addressing barriers, 67, 68
 - algorithm of care, 31
 - assessment step, 30–42
 - barriers to behaviors, 242
 - content at critical time points, 32
 - cost-benefit, 7–8
 - documentation, 69–70, 70
 - evaluation/monitoring step, 69–79
 - goal-setting step, 42–49
 - implementation step, 59–69
 - objectives of, 29
 - outcomes continuum, 71
 - outcomes measurement standards, 7
 - planning step, 49–58
 - principles, 30
 - problem solving in, 237, 238–242
 - process, 30, 33
 - traditional and empowerment-based approaches, 99
- Diabetes self-management education/training (DSME/T), 6
- Diabetes self-management support (DSMS), 86
 - for healthy eating, 125–128
 - traditional and empowerment-based approaches, 99
- Diabetes self-management training (DSMT), 29, 125
- Diabetes-associated infections, 644–647
- Diabetes-related skills, average ages for, 322
- Diabetic autonomic neuropathy (DAN), 221–222, 222, 770
 - exercise response and, 789
- Diabetic bullae, 644
- Diabetic corneal neuropathy, 730
- Diabetic dermatopathy, 643
- Diabetic dyslipidemia, 517–518
 - pharmacotherapy for, 522–530
 - treatment goals, 519–520
- Diabetic ketoacidosis (DKA), 37, 350, 381–382, 449, 617
 - complication prevention, 620–621
 - dehydration and, 617
 - diagnosis, 615
 - ingested glucose and, 612
 - insulin adequacy and, 612–613, 614
 - ketones and, 613
 - markers, 616, 616–617
 - mild, 623–624
 - monitoring, 612
 - pathology, 611–613
 - precipitating factors, 616
 - precipitating situations, 613–614
 - in pregnancy, 668
 - prevention of, 614
 - resolving, 620
 - self-care behaviors in prevention of, 621, 621–622
 - signs, symptoms, and laboratory indicators, 615–616
 - treatment of, 618, 618–621, 623–624
 - type 1 diabetes and, 383–384, 611
 - type 2 diabetes and, 612
- Diabetic kidney disease (DKD), 745, 755
 - exercise and, 461
 - exercise modifications for, 151
 - nutrition therapy and, 427
 - pathogenesis of, 748–749
 - progression of, 750
 - risk factors, 750
 - screening and detection, 751
 - stages of, 749, 749–750
 - standards of care, 282
- Diabetic macular edema, 733, 734, 734–735
- Diabetic nephropathy (DN), 219–220, 745
 - in pregnancy, 668
- Diabetic nerve damage, 646
- Diabetic neuropathy (DN), 220–222, 769
 - ADA evidence-grading systems, 777
 - bedside sensory tests, 772, 773
 - classification, 777
 - conditions mimicking, 778
 - definitions, 771
 - diagnosis and clinical assessment tools, 772–776
 - education and, 770–771, 776, 778
 - fall risks and, 784–786
 - pharmacologic therapies for pain from, 783–784
 - scoring systems, 772
 - screening recommendations, 772
 - state of disease, 770
 - treatment, 796–797
 - vascular risk factors and, 796
- Diabetic peripheral neuropathy (DPN), 220–221
- Diabetic retinopathy, 218–219, 219, 461, 726, 730
 - care process, 736–738
 - cataract treatment and, 727
 - counseling and referral, 738
 - natural history, 733
 - pathogenic mechanisms, 731

- in pregnancy, 668
 - risk factors, 732–733
 - severity scale, 731
 - Diabetic thick skin, 643–644
 - Diabetic truncal radiculoneuropathy, 796
 - Diabulimia, 260
 - Diagnosis
 - in children, 350–351, 402–403, 404
 - confirmation of, 351
 - criteria for, 349–351
 - of diabetic ketoacidosis, 615
 - in older adults, 400
 - testing options for, 350
 - Dialysis. *See* Hemodialysis; Peritoneal dialysis
 - Diet
 - cardiovascular disease management and, 701, 704
 - chronic kidney disease and, 757, 758
 - gluten-free, 642
 - Dietary Approaches to Stop Hypertension (DASH), 124, 125
 - Dietary Guidelines for Americans (DGAC), 424
 - Dietary reference intakes (DRIs), 415
 - for pregnant and lactating women, 661
 - Dietary Supplement Health and Education Act of 1994 (DSHEA), 552–553
 - Dietary supplements, 182
 - claims of manufacturers evaluated, 553–554
 - complementary health approaches, 551–586
 - concerns about use, 555
 - to lower blood glucose, 557, 558–563, 564–574
 - review of, 556–557, 558–564
 - safety categories, 557
 - self-care implications, 585–586
 - testing of, 553
 - to treat diabetes complications, 574, 575–578, 579–584
 - users, 554–555
 - Diethylpropion (Tenuate®), 474, 476, 476–477
 - Diltiazem extended release (Cardizem CD®; Tiazac®; Cardizem LA®), 542
 - Diltiazem sustained release (Cardizem SR®), 542
 - Dipeptidyl peptidase-4 (DPP-4), 348, 694
 - Dipeptidyl peptidase-4 inhibitors (DPP-4 inhibitors), 174, 205, 330, 335, 471, 473, 481, 493–495, 494, 694–695
 - Direct knowledge, 238
 - Direct questions, 38
 - Direct renin inhibitors (DRIs), 538–539, 539
 - Disabilities, patient education and, 66–67
 - Discharge counseling, 333–335, 334
 - Disequilibrium, 381
 - Disopyramide, 510
 - Distal symmetric diabetic polyneuropathies (DSPN)
 - classification and diagnostic assessment, 778–779
 - subtypes, 779–782
 - Distal symmetric polyneuropathy (DSP), 771, 774
 - Distal tubule, 746
 - Diuretics, 510, 533
 - adverse effects, 535
 - dosing, 535
 - drug interactions, 536
 - instructions, 536
 - loop, 534, 535
 - mechanisms of action, 535
 - monitoring, 536
 - potassium-sparing, 535, 535
 - pregnancy, precautions, and contraindications, 535
 - thiazide-type, 534, 534
 - Docosahexaenoic acid (DHA), 581–582
 - Documentation, 69–70, 70
 - self-monitoring of blood glucose, 197–198
 - Docusate, 181
 - Dogs, as pet therapy, 604
 - Dopamine receptor agonists, 175, 481, 489, 489–490
 - Double diabetes, 437
 - Doxazosin (Cardura®), 544, 706, 792
 - Driver safety, 382, 382
 - Drug interactions, 179–180, 507, 509–512, 512
 - complementary and alternative medicine, 555
 - statins, 523, 524
 - Drugs. *See specific drugs*
 - Dry skin, 182
 - DSME team, 60
 - Duetact, 508
 - Dulaglutide (Trulicity®), 178, 179, 205, 491, 492
 - Duloxetine, 784
 - Duration of exercise, 455
 - Dyslipidemia, 423–424, 517–518
 - alcohol and, 425
 - management of, 520
 - physical activity and, 425
 - treatment goals, 519–520
- E**
- Eating disorders, 258, 259, 260
 - healthy eating for, 122–123
 - informal screening questions, 260
 - screening for early eating disorder signs, 260–261
 - Eating habits, in adolescence, 381
 - Eating Healthy With Diabetes: Easy Reading Guide*, 131
 - Eating out, 133
 - Education
 - approaches, 61, 61–62
 - in complementary health approaches, 600
 - individual vs group, 62
 - for insulin patients, 176–177
 - older adults and strategies for, 401–402
 - problem-based learning, 62
 - after type 1 diabetes diagnosis, 368–369
 - Education for All Handicapped Act of 1975, 379
 - Education needs, 38, 39
 - Education plan
 - components of, 50
 - content, 50–57
 - exercise prescription integration with, 461
 - sample, 52
 - template for, 51
 - Education program management, 297–298
 - self-management, 298–306
 - Education sessions
 - attendance issues, 64
 - disabilities and, 66–67
 - identifying and addressing barriers in, 67
 - managing challenges in, 63–64
 - teaching environment for, 66
 - Educators, agile, 67–68
 - Eicosapentaenoic acid (EPA), 581–582
 - Elder Justice Act, 20
 - Electrocardiogram (ECG), 462
 - Electrolytes, 451–452
 - correcting abnormalities, 620, 627–628
 - imbalance of, 617
 - Electromagnetic-based therapies, 606
 - Electrotherapy. *See* Transcutaneous electrical nerve stimulation
 - Emotion-focused coping, 266
 - Empagliflozin (Jardiance®), 175, 205, 481, 490, 490–491, 509, 695
 - Emphysematous cholecystitis, 646
 - Emphysematous urinary tract infections, 647
 - Empowerment approach, 61, 61–62
 - Chronic Care Model with, 103
 - session components for, 103
 - Empowerment-based behavior-change protocol, 98–99, 101–102
 - Enalapril (Vasotec®), 536
 - Endocannabinoid system, 349
 - Endocrine emergencies, 350
 - Endocrine Society, 327
 - Endocrine system, 747
 - End-stage renal disease (ESRD), 219, 282, 745
 - Entacapone, 545
 - Entrapment syndrome, 795
 - Environmental triggers, for type 1 diabetes, 354

- Epidemic, 3
- Eplerenone (Inspra®), 535
- Eprosartan (Teveten®), 538
- Epworth Sleepiness Scale, 679
- Erectile dysfunction (ED), 791
- Eruptive xanthomas, 644
- Erythromycin, 790
- Erythropoietin, 747
- Escherichia coli*, 646, 647
- Estimated GFR (eGFR), 751
- Estrogen products, 510
- Etanercept (Enbrel®), 796
- Ethanol, 510
- Ethnicity
 - anxiety and coping, 270–271
 - health disparities linked to, 56
 - nutrition assessment and, 126–127
- European Association for the Study of Diabetes, 640
- Evaluation and monitoring
 - documentation, 69–70
 - educator accountability and, 70
 - formative evaluation, 71, 72
 - individual evaluation, 72
 - outcomes to evaluate, 72, 74, 74–75
 - summative evaluation, 71, 72
 - tools for, 76, 76
 - using data from, 77
- Evolocumab (Repatha®), 525, 526, 704
- Exchange Lists for Meal Planning*, 414, 415
- Exenatide (Byetta®), 178, 179, 205, 445, 491–493, 492, 790
- Exenatide LAR (Bydureon®), 492, 492
- Exenatide XR, 205
- Exercise (training). *See also* Physical activity
 - for adolescents, 154
 - balance, 154
 - for children, 154
 - conditioning phase, 142
 - cool-down phase, 142
 - flexibility, 149, 154, 442
 - frequency of, 455
 - modifications for conditions, 149–154
 - physical activity vs, 439
 - resistance, 442
 - warm-up phase, 142
- Exercise and Diabetes: A Clinician's Guide to Prescribing Physical Activity* (ADA), 454
- Exercise prescription, 143, 437, 453
 - children and teens, 456–457
 - diabetic kidney disease and, 461
 - education plan integration of, 461
 - frequency and duration, 455
 - intensity, 454–455
 - medical considerations, 458–459, 461
 - modes of, 454
 - older adults and, 457
 - pregnancy and, 457
 - retinopathy and, 461
 - stages of progress, 455–456, 456
- Exercise stress test, preparing patients for, 710
- Expanded Health Belief Model (EHBM), 89, 90
- Explanation, theory and, 87
- Exubera®, 502–503
- Eye, 725, 725
- Eye Diseases Prevalence Research Group (EDPRG), 727
- Eye examination, 735–736, 736
- Ezetimibe (Zetia®), 525, 525, 530
- Ezetimibe/simvastatin (Vytorin®), 525, 525

F

- Falling, diabetic neuropathy and risk of, 784–786
- Family
 - assessments and, 36
 - hyperosmolar hyperglycemic state follow-up and, 628
 - involving in goal setting, 45
 - lifestyle changes for, 441
- FAST (stroke recognition acronym), 712–713
- Fasting plasma glucose (FPG), 347
- Fat
 - dietary, 424
 - glycemia and, 418–419
 - physical activity and metabolism of, 444
- Feedback, 42, 402
- Feet. *See also* Foot care
 - visual inspection of, 220, 220, 221
- Fellow of the American Association of Diabetes Educators (FAADE), 12
- Felodipine (Plendil®), 542
- Female sexual dysfunction, 792
- Fenofibrate (Tricor®), 526, 703
- Fenugreek, 560, 568–569
- Fetal hyperinsulinemia, 667
- Fiber, 417, 424
- Fibric acid derivatives (fibrates), 511, 526, 526–527
- Fish oil, 576–577, 581–582
- Flaxseed, 561, 569
- Flexibility, 439
- Flexibility exercises, 149, 442
 - for older adults, 154
- Fluconazole, 510
- Fluid replacement, 618
- Fluids, 451–452
- Fluocinolone acetonide intravitreal implant (FA), 735
- Fluorescein angiography, 737–738
- Fluoxetine, 510
- Fluvastatin (Lescol®; Lescol® XL), 522, 523
- Foam cells, 644

G

- Gabapentin, 784
- Garlic, 577, 582–583
- Gastric banding, 423
- Gastric reduction surgery, 423
- Gastritis, atrophic, 642
- Gastrointestinal ailment products, 181–182
- Gastrointestinal dysfunction, 789–791
- Gastrointestinal tract, nutrition and, 122–123
- Gastroparesis, 459, 761, 790
 - nutrition for, 123
- Gemfibrozil (Lopid®), 526, 703
- Generational differences, 59
- Gestational diabetes (GDM), 120, 353, 501, 657, 679–681
 - AADE7™ in, 682–684
 - complications, 682
 - diabetes prevention, 685
 - healthy coping for, 684
 - healthy eating for, 683
 - medications, 684
 - monitoring for, 683–684
- Focal edema, 734
- Focal limb neuropathies, 795–796
- Follow-up appointments, 335
- Follow-up care
 - for hyperosmolar hyperglycemic state, 628
 - promoting, 68–69
- Food and Drug Administration (FDA), 175, 193, 404, 418, 469, 729
- Food and Nutrition Board, 415
- Food labels, reading, 132
- Food lists, 415
- Food plan, for gestational diabetes mellitus, 680–681
- Food shopping, 132–133
- Foot care
 - self-examination, 287–288
 - standards of care, 283
- Foot infections, 646–647
- Formative evaluation, 71, 72
- Fosinopril (Monopril®), 536
- Framingham Risk Score (FRS), 519
- Free fatty acids (FFAs), 346, 347
- Frequency of exercise, 455
- Frequency-modulated electromagnetic neural stimulation (FREMS), 797
- Friends, involving in goal setting, 45
- Fructosamine measurement, 213
- Fructose, 797
- Frustration, 265
- Fuel homeostasis, 345–347, 346
- Fuel metabolism
 - normal, 347–349
 - phases of, 345–347, 346

- physical activity for, 683
 - postpartum follow-up, 685
 - risk assessment, 678
 - screening and diagnosis, 677–678, 678
 - Ghrelin, 349
 - Gingivitis, 183
 - Ginseng, 561, 569–570
 - Glargine (Lantus®), 205, 445, 497, 498, 499, 502, 674
 - Glargine u300, 205
 - Glaucoma, 728–729
 - Glimepiride (Amaryl®), 173, 185, 205, 479, 482, 508
 - Glipizide (Glucotrol®; Glucotrol XL®), 173, 185, 205, 479, 482, 482, 508
 - Glomerular filtration, 746
 - Glomerular filtration rate (GFR), 747
 - estimating, 751
 - Glomerulus, 746
 - Glucagon, 347, 348, 383, 444
 - dosage recommendations, 383
 - Glucagon-like peptide-1 (GLP-1), 348, 348, 694
 - Glucagon-like peptide-1 (GLP-1) agonists, 178–179
 - Glucagon-like peptide-1 (GLP-1) receptor agonists, 205, 330, 335, 471, 473, 491–493, 492, 695, 790
 - Glucometers, 337
 - Glucose, 345–346, 347
 - diabetes diagnosis and levels of, 349
 - diabetic ketoacidosis treatment and, 620
 - diabetic retinopathy and, 732
 - hepatic, 614
 - ingested, 612
 - Glucose control, in gestational diabetes mellitus, 682
 - Glucose pattern management (GPM), 204, 207–208
 - Glucose self-management, 614
 - Glucose-dependent insulin secretagogues, 790
 - Glucose-dependent insulin-releasing polypeptide, 348
 - Glucovance, 508
 - Glulisine (Apidra®), 205, 497, 497, 502, 674
 - Gluten-free diet, 642
 - Gluten-sensitive enteropathy (GSE), 122–123
 - Glyburide (Diabeta®; Micronase®; Glynase®; PresTab®), 173, 205, 479, 482, 483, 508, 511, 674, 684
 - Glycemia
 - alcohol and, 420
 - carbohydrate and, 415–418
 - fat and, 418–419
 - physical activity and, 419–420
 - protein and, 418–419
 - vitamin and mineral supplementation and, 419
 - Glycemic control, 414–420
 - cardiovascular event prevention and, 693–694
 - conditions associated with poor, 381–382
 - continuous subcutaneous insulin infusion and, 373
 - diabetic neuropathy treatment and, 796
 - flexibility exercise and, 442
 - hypoglycemia fear and, 382
 - risk reduction, 276, 278
 - Glycemic index (GI), 416–417
 - medical nutrition therapy and, 125
 - Glycemic load (GL), 416
 - Glycemic targets, 624, 624
 - Glycogen, 347, 440
 - during physical activity, 443–444
 - Glycosylated HDL, 639
 - Glycosylation, 214
 - Glyxambi, 509
 - Goal setting, 155–156
 - AADE7 Self-Care Behaviors™ for guiding, 43–45
 - collaborating on education, 43
 - collaborative, 46–49
 - considerations in, 43
 - criteria for, 42
 - patient skill assessment for, 45–46
 - self-monitoring and, 46
 - SMART for, 47
 - strategies for, 45
 - theory for, 43
 - tools for, 49
 - Graded exercise test, 458, 459, 462
 - Graves' disease, 641
 - Group education, 62, 63, 64
 - Guided imagery, 603
 - Gut microbiome, 349
 - Gymnema, 562, 570–571
- H**
- H1N1 (Swine flu), 670
 - Hamilton Depression rating scale, 649
 - Handouts, evaluating, 55
 - Harvard School of Public Health, 345
 - Hashimoto's thyroiditis, 641
 - Head infections, 645
 - Health Belief Model (HBM), 88, 89–91
 - constructs and applications, 89
 - evidence base for, 90–91
 - Health beliefs, education plan and, 55–57
 - Health home, 18
 - Health insurance exchanges, 17
 - Health Insurance Portability and Accountability Act (HIPAA), 210
 - Health literacy, 54–55
 - Healthcare systems, 16
 - Healthcare team, 240
 - HealthCare.gov, 16, 17
 - Health-related physical fitness, 438–439
 - Healthy eating, 585
 - behavior change role in, 128–130, 129, 130
 - case study, 116, 133–134
 - cross-cultural counseling, 126
 - diabetes educators core competencies, 116, 117–118
 - DSME and DSMS, 125–128
 - for eating disorders, 122–123
 - education, 130
 - effective approaches, 123–124, 124–125
 - for gestational diabetes mellitus, 683
 - key concepts, 115
 - meal-planning resources, 130–131
 - meal-planning skills, 132
 - Nutrition Care Process and Model and, 126–128
 - nutrition diagnosis, 127
 - nutrition intervention, 127
 - patterns of, 413–414
 - in pregnancy, 672
 - promoting, 125–128
 - self-management, 130
 - theory into practice, 130–133
 - type 1 diabetes and, 373–374
 - Healthy eating, medical nutrition therapy and, 116–125
 - Healthy Food Choices* pamphlet, 131
 - Healthy People 2020, 15, 56
 - Hearing-impaired patients, 67
 - Heart failure, 715
 - Heart rate reserve (HRR), 455
 - Helping the Student With Diabetes Succeed: A Guide for School Personnel (NDEP), 379
 - Hemodialysis (HD), 760–761
 - Hemoglobin, chronic kidney disease and, 752–753
 - Hepatic glucose, 614
 - Hepatitis B vaccine, 226, 646
 - Hepatitis B virus (HBV), 646
 - High-density lipoproteins (HDL-C), 517–518
 - Hispanic Americans, anxiety and coping, 271
 - Histamine-2 receptor blockers, 181–182
 - HMG-CoA reductase inhibitors (statins), 522–524, 522, 524
 - adverse effects, 523
 - dosage, 522, 523
 - drug interactions, 523, 524
 - instructions, 524
 - mechanism of action, 522–523
 - monitoring, 524
 - Homeopathy, 602

- Honey, 562, 571–572
- Hormone Health Network, 327
- Hormones. *See also specific hormones*
 counterregulatory, 347
 fuel metabolism role, 347–349
 incretin (intestinal), 348
 pancreatic (glucoregulatory), 347–348
 physical activity responses, 440
- Hospital admission
 A1C and blood glucose assessment, 329
 assessment at, 330
 transitional care, 329, 329–331
- Hospital discharge, 332–338
- Human leukocyte antigen (HLA), 353–354, 386
- Humulin®, 502
- Huntley's Papules, 644
- Hydration, 451–452
- Hydrochlorothiazide (HydroDIURIL®; Microzide®), 534, 534
- Hyperbilirubinemia, 670
- Hyperchloremic acidosis, 620
- Hyperglycemia, 216, 446
 advanced glycation end products and, 638
 assessing, 615–618, 626–627
 cardiometabolic risk and, 692
 cardiovascular disease pathogenesis and, 358
 defining, 611
 detecting, 239
 diabetic ketoacidosis and, 616–617
 diabetic kidney disease and, 748
 education for, 631
 infection susceptibility and, 644
 inpatient concerns, 624, 624–625
 interpreting, 449
 microvascular disease and, 218
 neurologic changes in, 626–627
 physical activity and, 449
 in pregnancy, 667
 preventing, 239, 631
 self-care behaviors in prevention of, 621, 621–622
 severe, 626
 treatment, 631
- Hyperglycemia and Adverse Pregnancy Outcome (HAPO) study, 120
- Hyperlipidemia, diabetic retinopathy and, 733
- Hyperlipoproteinemia, cardiometabolic risk and, 692
- Hyperosmolar hyperglycemic nonketotic syndrome, 625–626
- Hyperosmolar hyperglycemic state (HHS), 185, 350
 case study, 626
 complication prevention in, 628
 high-risk individual identification, 630
 signs, symptoms, and laboratory indicators, 625–626
 treatment of, 627, 627–628
- Hypertension, 216, 217, 530–531
 alcohol and, 426–427
 cardiometabolic risk and, 692
 in children and adolescents, 532, 533
 chronic kidney disease and medications for, 757
 classification, 532
 diagnosis, 532–533
 goals, 532
 management of, 705–706
 nutrition therapy and, 425–427
 pharmacotherapy, 533, 533–546, 534
 physical activity and, 426
 in pregnancy, 668, 668
 sodium and, 181, 426
 treatment of, 705–706
 weight loss and, 425
- Hyperthyroidism, 641
- Hypertriglyceridemia, 518
- Hypnosis, 603
- Hypocalcemia, neonatal, 670
- Hypocaloric sweeteners, 418
- Hypoglycemia
 anxiety and, 208
 causes, 505–506
 definitions, 505
 detecting, 239
 fear of, 176
 insulin and, 444
 medication impact on risk of, 444–446
 metformin and, 486
 neonatal, 670
 older adults and risk of, 401
 preventing, 239, 451, 506
 prevention in type 1 diabetes, 375
 rehabilitation facility considerations, 338
 risk assessment for, 444
 self-monitoring of blood glucose and anxiety about, 208
 temporary visual changes in, 730
 treatment of, 506–507
 type 1 diabetes and, 375, 382–383, 444, 445
 type 2 diabetes and, 444, 507
- Hypoglycemia unawareness, 221, 322, 444, 794–795
- Hypothermia, 617
- Hypothetical situations, 39
- Hypothyroidism, 383
- Hypotonia, 617
- IMB model, 706
- Immunizations, 225–226
 preventive care services, 285–286
- Immunomodulatory therapy, 796
- Immunosuppressive therapy, 796
- Impaired fasting glucose (IFG), 347, 349
- Impaired glucose tolerance (IGT), 349
- Impaired insulin secretion, 355–356
- Implanted spinal cord stimulation, 797
- Implementation
 DSME team, 60
 standards of practice, 60
 strategies for, 60–62
- Importance rulers, 161
- Incentives to Prevent Chronic Disease Program, 16
- Incidence, vs prevalence, 4
- Incretin effect, 348
- Incretin (intestinal) hormones, 348
- Incretin mimetics, 205
- Incretin-based therapies, 491–496
- Indapamide (Lozol®), 534
- Independence at Home Demonstration Program, 16, 18–19
- Indian Health Service, 345
- Individual education, 62
- Individual evaluation, 72
- Individualized treatment plans, 396–398
- Individualizing goals, 44
- Infants and toddlers, 322
 developmental issues, 377
 medications, 371
 psychosocial issues in type 1 diabetes, 376
- Infections, 644–647
- Influenza, 645–646
- Influenza vaccine, 225
- Information technology (IT), 306
- Information-seeking coping, 266
- Infrared light, 797
- Ingested glucose, 612
- Inhalation devices, 502–503
- Initial assessment, 216
- Injections
 children and teen considerations, 371
 tips for, 177
- Inpatient education, 63
- Institute of Medicine (IOM), 21–22
 Food and Nutrition Board, 415
 on nutrition therapy, 412
 on pregnancy weight gain, 658
- Instructional strategies, in DSME, 52–54, 53, 54
- Insulin, 205, 347, 473
 administration in children, 184
 alcohol and, 180
 children and adolescent use of, 405
 children and teens considerations for injection of, 371
 children and types of, 183

I

Icodextran, 762
 Icosapent ethyl (Vascepa®), 527, 527
 Illness adjustment, 262

chronic kidney disease and, 757
 concentrations, 497
 delivery devices, 501–503
 diabetic ketoacidosis and adequacy of, 612–613, 614
 at discharge, 335
 dosage, 331, 498–499
 education topics, 176–177
 fear of, 175–176
 formulations, 178, 502
 in gestational diabetes mellitus, 684
 growth and puberty effects on dosage, 372
 hospital use of, 330–331
 in hyperosmolar hyperglycemic state treatment, 628
 hypoglycemia and, 444
 impaired secretion of, 355–356
 indications for use, 496–497
 injections, 177
 intermediate-acting, 497, 498
 key points for patient, 178
 lactation and, 677
 long-acting, 497, 498
 mechanism of action, 496
 monitoring and, 503
 multiple daily, 200, 369, 445
 in older adults, 401
 overcoming administration problems, 177
 patient instructions, 503–504
 physical activity and, 452–453
 physiology in diabetes, 496
 precautions, 503
 pregnancy and, 501, 658, 658, 674, 674
 premixed, 175
 rapid-acting, 497, 497–498
 regimens, 499, 499–500
 short-acting, 497, 497–498
 side effects, 503
 time action of preparations, 497, 497–498
 in type 1 diabetes treatment, 500–501
 in type 2 diabetes treatment, 398, 500
 types of, 497–498
 use, 503–504

Insulin autoantibodies (IAAs), 355
 Insulin deficiency, 449
 Insulin degludec, 178, 205, 498
 Insulin glargine, 178
 Insulin infusion therapy, 373
 Insulin lispro, 178
 Insulin pump therapy, 200, 501
 correctional institutions and, 337
 physical activity and, 453
 pregnancy and, 674–675
 Insulin resistance, 355

Insulin secretagogues, 205
 Insulins, premixed, 175, 205, 372–373, 497, 498
 Insulin-to-carbohydrate ratios (ICRs), 414, 415
 Integrated delivery networks (IDNs), 16
 Integrative medicine, complementary and alternative vs, 598
 Intensive insulin therapy, 200
 Intermediate-acting insulin, 497, 498
 Intermittent claudication, 714, 778
 Intermittent peritoneal dialysis (IPD), 761
 International Association of Diabetes and Pregnancy Study Group (IADPSG), 677
 International Diabetes Federation (IDF), 3, 4, 642
 International Federation of Clinical Chemistry (IFCC), 214
 International Organization for Standardization (ISO), 193
 International Protocol for the Validation of Automated BP Measurement Devices, 217
 International Society for Pediatric and Adolescent Diabetes (ISPAD), 327, 417, 640, 642
 transition recommendations/guidelines, 326
 Internet-based exercise programs, 158
 Intervention, nutrition, 127
 Intima-media thickness (IMT), 692
 Intraepidermal nerve fiber density (IENFD), 773, 774, 774
 Intraocular pressure (IOP), 726, 728, 735
 Intrauterine environment, 403
 Intravitreal glucocorticoids, 729
 Invokamet, 509
 Irbesartan (Avapro®), 538
 Iron, 545
 Ischemic CRVO, 729
 Ischemic optic neuropathy, 730
 Islet cell antibodies (ICAs), 354–355
 Isoniazid, 511
 Isradipine controlled release (DynaCirc CR®), 542

J

Janumet, 509
 Jeopardy!®, 246
 Jet injectors, 501
 The Joint Commission
 Certificate of Distinction for Inpatient Diabetes Care, 63
 inpatient diabetes management accreditation, 7
 Joint National Committee, 532

Juvenile Diabetes Research Foundation (JDRF), 327, 378

K

Kaopectate, 181
 Ketoconazole, 511
 Ketone tests, 214, 370–371
 gestational diabetes mellitus and, 683
 during pregnancy, 674
 Ketones, diabetic ketoacidosis and, 613
 Ketosis, 617
 starvation, 449
 Kidney disease. *See* Chronic kidney disease; Diabetic kidney disease
 Kidney failure, 745
 Kidneys
 functioning of, 746–747
 pathophysiology, 747–748
 physiology, 746–747
 transplantation of, 762–763
Klebsiella pneumoniae, 647
 Knowles, Malcolm, 65
 Kombiglyze XR, 509

L

Labetalol (Normodyne®), 540
 Labor, diabetes care during, 676
 Lactation, 677
 gestational diabetes mellitus during, 120
 nutrition during, 120
 preexisting diabetes during, 120
 Lansoprazole (Prevacid®), 181
 Large-fiber neuropathy, 780, 781–782, 782, 784
 Laser eye surgery, 737
 Latent autoimmune diabetes in adults (LADA), 357, 386, 400
 Laughter, 604
 Lay health workers, 37
 LDL-C monitoring, 704
 Leaky gut, 642
 Learning, generational differences in, 58, 59
 Learning objectives, 46, 47, 48
 Learning theory, 65
 Leptin, 349
 Levels of practice, 9, 10–11, 12
 Levothyroxine, 224
 Lifestyle, for physical activity, 156–158
 Lifestyle interventions
 in children and adolescents, 404
 hypertension treatment with, 533, 705–706
 for type 2 diabetes, 396
 Lifestyle issues, 36
 education plan and, 55–57
 family changes, 441

- Lifestyle management, 701–702
 Light therapy, 606
 Linaclotide (Linzess®), 790
 Linagliptin (Tradjenta®), 174, 205, 481, 494, 509
 γ-Linolenic acid, 797
 Lipase inhibitors, 478–479
 Lipid management, 702–704
 for children and adolescents, 709
 Lipids
 chronic kidney disease and, 752, 753
 diabetic retinopathy and, 733
 monitoring, 217–218
 standards of care, 280–281
 transport of, 517, 518
 Lipoproteins, 517–518, 639
 Liraglutide (Saxenda®; Victoza®), 178, 205, 423, 445, 475, 491, 492, 493, 695, 790
 Lisinopril (Prinivil®; Zestril®), 536, 706
 Lispro (Humalog®), 205, 497, 497, 502, 674
 Lispro u200, 205
 Listeriosis, 660
 Lixisenatide, 695
 Logbooks, 197, 199, 369
 Long-acting insulin, 497, 498
 Long-term care facilities, 336–337
 Look AHEAD study, 357, 421, 424, 701
 Loop diuretics, 534, 535
 Loop of Henle, 746
 Loperamide (Imodium®), 181
 Lorcaserin (Belviq®), 423, 474, 475, 477–478
 Losartan (Cozaar®), 538
 Lovastatin (Mevacor®; Altoprev®), 522, 523
 Low-carbohydrate eating, 124, 125
 Low-density lipoproteins (LDL-C), 517–518, 752
 Lower intestinal tract dysfunction, 790–791
 Low-fat eating, 123, 124
 Lubiprostone (Amitiza®), 790
- M**
- Macronutrients, 414–415
 Macrosomia, 670
 Macrovascular disease, 637
 advanced glycation end products and, 638–639
 monitoring for, 216–218
 Macular edema. *See* Diabetic macular edema
 Magnesium, 628
 Magnet therapy, 606
 Mail Order Program for Diabetes Testing Supplies, 192
 Maladaptive coping strategy, 271
 Male sexual dysfunction, 791–792
 Malignant external otitis, 645
 Massage, 604
 Master certified health education specialist (MCHES), 8
 Maturity-onset diabetes of the young (MODY), 357–358
 Meal plans, 374
 Meal-planning, skills, 132
 Meal-planning resources
 carbohydrate counting, 131
 Choose My Plate, 130–131, 131
 Mealtime insulin. *See* Bolus insulin
 Medicaid, 17
 Affordable Care Act and, 18, 19, 20
 Incentives to Prevent Chronic Disease Program, 16
 Medicaid Health Homes, 16
 Medical evaluation, for being active, 141–142
 Medical nutrition therapy (MNT), 8, 116–117, 124, 189, 374
 for gestational diabetes mellitus, 681–682
 glycemic index, 125
 goals for prediabetes and diabetes, 118
 Nutrition Care Process and Model and, 126–128
 nutrition for management, 119–123
 nutrition for prevention, 119
 standards of care, 278
 Medicare
 Affordable Care Act and, 18, 19, 20
 blood glucose meter selection and, 192
 group instruction requirement, 62, 63
 Independence at Home Demonstration Program, 16
 Part B, 192
 Medications, 169. *See also specific types*
 adherence, 170, 507
 administration by others, 183–184
 basic clinical considerations, 173–179
 blood glucose effects of, 205
 case study, 170
 children and adolescents and, 183, 184, 404–405
 chronic kidney disease and, 755, 755–756, 757
 combination oral, 507, 508–509
 cost of, 172–173
 decision tree for, 246
 diabetes mellitus barriers to use of, 171
 at discharge, 335–336
 drug interactions, 179–183, 507, 509–512, 512
 for gestational diabetes mellitus, 684
 hospital use of, 330–331
 for hypertension, 533, 533–546
 hypoglycemia risk and, 444–446
 for obesity management, 471, 473, 474–475, 476–479
 older adults and, 185, 401
 oral glucose-lowering combinations, 172
 patient education, 173–179
 physical activity and, 452
 pregnancy and, 674–675
 product aids, 172
 regimen flexibility in type 1 diabetes, 372
 side effects, 505
 in type 1 diabetes, 371–373
 in type 2 diabetes, 396–398, 404–405, 406
 Medication-taking behavior
 regimen changes and adjustments, 172
 relationships and communication to improve, 171–172
 warning signs, 170–172
 Meditation, during pump therapy, 599
 Mediterranean-style eating, 123, 124, 424–425
 Meglitinides, 173–174, 185, 205, 335, 452, 479, 483–485, 484
 Memory, 65
 Men, anxiety and coping in, 269–270
 Mercury-contaminated fish, 660
 Metabolic abnormalities, in chronic kidney disease, 753–754
 Metabolic adaptations, to aerobic activity, 440
 Metabolic control
 in adolescence, 323
 diabetic neuropathy treatment and, 796
 long-term monitoring of, 214–216
 thyroid testing and, 641
 in type 1 diabetes, 372
 Metabolic fitness, 438
 Metabolic syndrome, obstructive sleep apnea and, 226
 Metaglip, 508
 Metformin (Glucophage®; Glucophage XR®; Fortamet®; Riomet®; Glumetza®), 174, 205, 335, 356, 401, 473, 480, 485, 485–486, 674, 675
 before cardiac catheterization and angioplasty, 711
 in children and adolescents, 404–405
 in combination medications, 508, 509
 diabetic kidney disease and, 755
 in gestational diabetes mellitus, 684
 heart failure and, 715
 interactions, 511
 renal function monitoring and, 185
 vitamin B₁₂ deficiency and, 642
 Methyl dopa (Aldomet®), 545
 Metoclopramide (Reglan®), 790
 Metolazone (Zaroxolyn®), 534
 Metoprolol succinate (Toprol XL®), 540
 Metoprolol tartrate (Lopressor®), 540

Microalbuminuria, 639, 640
 Microvascular disease, 637
 A1C levels and, 639
 monitoring for, 218–223
 Miglitol (Glyset®), 174, 205, 480, 488, 488
 Milk thistle, 562–563, 572
 Mind and body practices, 551
 Mind and body-based health approaches, 604–605
 Mind-body interventions, 603–604
 Mindfulness, 603–604
 Mineral supplementation, 419
 Minimal encouragers, as active listening skill, 40–41
 Mini-Nutritional Assessment, 428
 Mixed neuropathy, 784
 Mobile apps, 245, 245
 Model
 definition of, 86
 Health Belief Model, 88, 89–91
 Transtheoretical Model, 94–96, 95
 Moexipril (Univasc®), 536
 Monitor talk, 208
 Monitoring, 406. *See also* Blood glucose meters; Continuous glucose monitoring
 baseline evaluation and, 189
 checklist for, 190, 227–229
 for complications and comorbidities, 216
 comprehensive approach, 216–227
 data management systems for, 209–210
 depression/cognitive assessment, 223
 diabetic ketoacidosis and, 612
 diuretics, 536
 for gestational diabetes mellitus, 683–684
 initial assessment for, 216
 insulin use and, 503
 long-term, 214–216
 for macrovascular disease, 216–218
 noninvasive, 213
 other methods for, 213–214
 physical activity and, 450
 in pregnancy, 672–674
 renal function, 185
 situations requiring more frequent, 199
 statin therapy and, 524
 for type 1 diabetes, 369–371
 weight, 223–224
 Monoamine oxidase inhibitors, 511, 545
 Mononeuropathies, 795, 795
 Monounsaturated fatty acids (MUFA), 424
 Morphological fitness, 438
 Morton's neuroma, 778
 Motivational interviewing (MI), 103
 evidence base, 105–106
 patient empowerment and, 106, 106
 for physical activity, 160–161
 principles of, 104–105, 105

Multifocal neuropathies, 795–796
 Multiple daily insulin (MDI), 200, 369, 445
 Muscular endurance, 439
 Muscular strength, 439
 Music therapy, 606
 Myocardial infarction (MI), 517, 691
 patient education after, 711
 treatment of acute, 710–711

N

Nadolol (Corgard®), 540
 Naltrexone/bupropion ER, 423
 Naltrexone/bupropion HCl (Contrave®), 475
 Nateglinide (Starlix®), 173, 205, 479, 483–484, 484
 National Alliance to Advance Adolescent Health, 327
 National Center for Complementary and Alternative Medicine (NCCAM), 182, 597
 National Center for Complementary and Integrative Health (NCCIH), 597
 National Center for Telehealth & Technology, 245
 National Center on Elder Abuse, 20
 National Diabetes Education Program (NDEP), 56, 345, 379
 National Diabetes Prevention Program (NDPP), 16, 20
 National Diabetes Statistics Report, 394
 National Glycohemoglobin Standardization Program (NGSP), 214
 National Health Care Workforce Commission, 20
 National Heart, Lung, and Blood Institute, 696, 709, 752
 National Institute for Health and Clinical Excellence (NICE), transition recommendations/guidelines, 326
 National Kidney Foundation, 751
 National Kidney Foundation–Kidney Disease Outcomes Quality Initiative (NKF-KDOQI), 747
 National Lipid Association, 520, 530
 National Quality Forum, 624, 698
 National Standards for Diabetes Education, 5
 National Standards for Diabetes Self-Management Education, 30, 68, 69, 79
 planning process description in, 50
 National Standards for Diabetes Self-Management Education and Support (NSDSMES), 86, 87, 299
 curriculum content requirements, 306
 standards, 310, 310
 Native American medicine, 602
 Native Americans, anxiety and coping, 271

Natural medicines
 effectiveness categories, 556
 safety categories, 557
 Natural Medicines databases, 182
 Natural products, 551
 Naturopathy, 602
 Nebivolol (Bystolic®), 540
 Necrotizing fasciitis (NF), 644
 Needle anxiety, 382
 Neonatal hypocalcemia, 670
 Neonatal hypoglycemia, 670
 Neostigmine (Prostigmin®), 790
 Neovascular glaucoma (NVG), 728–729
 Neovascularization elsewhere (NVE), 733
 Neovascularization in the optic disc (NVD), 733
 Nephropathy, 219–220, 637, 745
 physical activity and, 461, 461
 in pregnancy, 668
 Nephrotic syndrome, 747–748
 Nerve conduction studies (NCS), 774
 Nerve conduction velocity (NCV), 776
 Neuritis, 781
 Neuropathic pain, 771–772, 775
 combinations of large- and small-fiber damage, 784
 defining, 782–783
 laboratory tests for evaluating, 783
 nociceptive and non-nociceptive, 783
 pharmacologic therapies for, 783–784
 Neuropathy, 220–222, 637, 730. *See also* Autonomic neuropathy
 controversies in management of, 797–798
 exercise prescription and, 458–459
 focal limb, 795–796
 ischemic optic, 730
 large-fiber, 780, 781–782, 782, 784
 mixed, 784
 monitoring for, 220–222
 mononeuropathies, 795, 795
 multifocal, 795–796
 painful diabetic peripheral, 782
 peripheral, 151, 220–221, 459, 782
 peripheral arterial disease differentiation from, 714
 physical activity and, 458–459, 460
 proximal-motor, 795–796
 rapidly reversible hyperglycemic, 779
 small-fiber, 779, 780, 780–781, 781, 784
 standards of care, 283
 surgical treatment of, 798
 Neutral protamine hagedorn (NPH), 205, 445, 497, 498, 502
 Newest Vital Sign, 54
 Niacin, 511, 528–529, 529, 703
 Nicardipine sustained release (Cardene SR®), 542

Nicotine replacement therapy, 702
 Nifedipine long-acting (Adalat® CC; Procardia XL®), 542
 Nisoldipine (Sular®), 542
 Nocturnal penile tumescence (NPT), 791
 Noninvasive monitoring, 213
 Nonischemic CRVO, 729
 Nonnutritive sweeteners, 418
 pregnancy and, 660
 Nonprescription medications, 180–183
 Nonproliferative diabetic retinopathy (NPDR), 461, 733
 Nonproliferative retinopathy, 731
 Nonsteroidal anti-inflammatory drugs (NSAIDs), 181, 511
 Nopal, 563, 572–573
 Normalization, chronic disease and, 42
 Novolin®, 502
 Nurse Education and Transition (NEAT), 63
 Nutrition
 assessment, 126–127
 breastfeeding and, 661, 662
 celiac disease and, 122–123
 diagnosis, 127
 for gastroparesis, 123
 intervention, 127
 for management, 119–123
 monitoring and evaluation, 128
 during pregnancy, 120, 658–660, 659, 660
 for prevention, 119
 well-designed education encounter, 128
 Nutrition Care Process, 412
 Nutrition Care Process and Model (NCPM)
 cross-cultural counseling, 126
 for medical nutrition therapy, 126–128
 nutrition assessment, 126–127
 nutrition diagnosis, 127
 nutrition intervention, 127
 Nutrition Practice Guidelines, 128
 Nutrition intervention, 127
 Nutrition Practice Guidelines (NPGs), 128
 Nutrition therapy, 411, 414–420
 cardiovascular disease and, 423–425
 in children and adolescents, 427–428
 diabetic kidney disease and, 427
 dyslipidemia and, 423–424
 goals, 412–413
 hypertension and, 425–427
 in older adults, 428–429
 weight management and, 421–423
 in youth, 427–428

O

OARS communication skills, 104
 Obesity, 344, 345, 423
 exercise modifications for, 152
 management approaches, 471

 medications for management of, 471, 473, 474–475, 476–479
 pregnancy complications and, 668
 Obstructive sleep apnea (OSA), 226, 226, 647–648
 Ocular palsies, 730
 Office of Minority Health and Health Disparities, 56
 Olanzapine (Zyprexa®), 180
 Older adults
 anxiety and coping in, 269–270
 aspirin use in, 707
 clinical practice guidelines and, 640
 complications in, 401
 education strategies and, 401–402
 exercise modifications for, 153, 153–154
 exercise prescription, 457
 hyperosmolar hyperglycemic state treatment and, 627
 hypoglycemia risk in, 401
 medications and, 185
 nutrition for, 121–122
 nutrition therapy in, 428–429
 problem solving and, 248
 screening and diagnosis in, 400
 self-monitoring of blood glucose needs, 198
 teaching and, 58
 type 2 diabetes in, 400–402
 vitamin D and, 428
 Olmesartan (Benicar®), 538
 Omega carboxylic acids (Epanova®), 527, 527
 Omega-3 fatty acids, 424, 527, 527. *See also* Fish oil
 Omega-3-acid ethyl esters 90 (Lovaza®), 527, 527
 Omeprazole (Prilosec®), 181
 1,5-Anhydroglucitol blood test (GlycoMark™), 213
 Onychomycosis, 644–645
 Ophthalmologic products, 183
 Optical coherence tomography, 738
 Oral disease, 645
 Oral glucose tolerance test (OGTT), 349, 367, 677–678
 Oral glucose-lowering agents, 675
 lactation and, 677
 Oral glucose-lowering combinations, 172
 Oral hygiene products, 182–183
 Orlistat (Xenical®; Alli®), 423, 475, 478–479
 Orthostatic hypotension, 217
 Osmolality, 617
 Osteoarthritis, 778
 Osteopathic medicine, 602
 Osteoporosis, 224–225, 225
 Outpatient care, transitioning to, 332–333, 332–338

Over-the-counter drugs (OTC drugs), 180
 Oxidative stress, 796–797
 Ozurdex, 729, 735

P

Paced learning, 402
 Pacific Islanders, anxiety and coping, 271
 Pain and fever products, 180–181
 Pain intensity scales, 782, 783
 Pain questionnaires, 782, 783
 Pain screening tools, 782
 Painful diabetic peripheral neuropathy (PDPN), 782
 Pancreas, insulin secretion, 355
 Pancreas transplantation, 763
 Pancreatic (glucoregulatory) hormones, 347–348
 Pancrelipase, 511
 Pandemic, 3
 Panretinal photocoagulation (PRP), 729, 735, 737
 Paraphrasing, as active listening skill, 40
 Parathyroid hormone (PTH), 746, 759
 Parents, diabetes management roles, 379
 Parties, meal planning and, 133
 Patient centered medical homes (PCMHs), 8, 16
 Patient education
 for insulin, 176–177
 for medications, 173–179
 after myocardial infarction, 711
 Patient empowerment approach, 88, 97
 behavior-change theories and, 98
 DSME and DSMS in, 98
 evidence base for, 102–103
 motivational interviewing and, 106, 106
 Patient Health Questionnaire-2 (PHQ-2), 223
 Patient Protection and Affordable Care Act (ACA), 5, 16–22
 Patients
 agenda of, 44
 buy-in from, 44
 diabetes educator conflict with, 244
 with disabilities, 66–67
 hearing impaired, 67
 observing behavior of, 46
 problem-solving empowerment for, 244–245
 skill assessment, for goal planning, 45–46
 understanding and respecting as individual, 44
 Pediatric care, 322
 Pediatric Endocrine Society, 327
 Pedometers, 158
 Pelvic infections, 647
 Pen devices, 502

- Penbutolol (Levitol®), 540
- Peptide-YY (PYY), 349
- Perindopril (Aceon®), 536
- Periodontal disease, 226–227
- Peripheral arterial disease (PAD), 222–223, 692
 aspirin use and, 707
 detection and diagnosis, 714–715
 diabetes and presentation of, 713–714
 exercise modifications for, 150
 risk in diabetes for, 713
- Peripheral neuropathy, 220–221
 exercise modifications for, 151
 exercise prescription and, 459
 painful diabetic, 782
- Peritoneal dialysis (PD), 761–762
- Pernicious anemia, 642
- Personal care record, risk reduction, 288
- Personal identity, coping, 262, 263
- Pet therapy, 604
- Phacoemulsification, 729
- Pharmacodynamic interaction, 512
- Pharmacokinetic interaction, 507
- Pharmacologic interventions
 in children and adolescents, 404–405, 709
 for chronic kidney disease, 757, 759
 for diabetic dyslipidemia, 522–530
 for diabetic neuropathic pain, 783–784
 for hypertension, 533, 533–546, 534
 for obesity treatment options, 471, 473, 474–475, 476
 for type 2 diabetes, 396–398
 weight management and, 422
- Phendimetrazine (Bontril), 474, 476, 476–477
- Phenothiazines, 511
- Phentermine (Adipex®), 474, 476, 476–477
- Phentermine/topiramate (PHEN/TPM; Qsymia™), 474, 476, 476–477
- Phentermine/topiramate extended release, 423
- Phenylephrine, 180
- Phenytoin, 511
- Phosphate, 620
- Phosphorus, 628
- PHQ-2, 649
- PHQ-9, 649
- Physical activity, 120, 139–140, 405, 437, 585
 adoption and maintenance of, 155–161
 blood glucose and, 446–448
 blood glucose monitoring and, 452–453
 carbohydrate requirements during, 450
 cardiovascular disease management and, 702
 case study, 140
 children and adolescent modifications, 154
 cultural considerations, 154–155
 developing structured program of, 142–155
 diabetes complications modifications, 150–152
 diabetes management and, 441–442
 diabetic autonomic neuropathy and, 789
 diabetic neuropathy and, 785–786
 dyslipidemia/cardiovascular disease risk and, 425
 energy systems during, 443
 equivalent steps per activity, 159
 exercise (training) vs, 439
 for gestational diabetes mellitus, 683
 glycemia and, 419–420
 hormonal responses, 440
 hyperglycemia and, 449
 hypertension and, 426
 insulin adjustments and, 452–453
 insulin administration and, 453
 insulin pump therapy and, 453
 lifestyle promoting for, 156–158
 medical evaluation for, 141–142
 medication adjustments and, 452
 metabolic effects, 440
 monitoring and, 450
 motivational interviewing, 160–161
 nephropathy and, 461, 461
 neuropathy and, 458–459, 460
 obesity modifications, 152
 older adult modifications, 153, 153–154
 overcoming barriers to, 437
 physiological responses to, 443–444
 during pregnancy, 661, 661, 672, 673
 pregnancy modifications, 152–153
 problem solving and, 452–453
 program-design considerations, 141–142
 regimen adjustment for, 447–448
 resistance (strength) training, 147–149, 154
 retinopathy and, 461, 462
 role in type 2 diabetes prevention and treatment, 439–441
 self-management strategies for, 450–453
 snacking during, 450–451
 stage-matched interventions, 158–160
 standards of care, 279
 states of change in behavior, 159
 subcategories, 439
 type 1 diabetes and, 374–375
 weight management and, 422
- Physical fitness
 defining, 438
 health-related, 438–439
 terminology, 438, 438–439
- Physiological fitness, 438
- Pindolol (Visken®), 540
- Pioglitazone (Actos®), 174, 205, 335, 480, 486, 486–487, 508
- Pitavastatin (Livalo®), 522, 523
- Plain language, 55
- Planning, 49–58
 education plan components, 50
 education plan content, 50–57
- Plant stanols, 424
- Plant sterols, 424
- Plantar fasciitis, 778
- Pneumococcal pneumonia, 646
- Pneumococcal vaccine, 226, 646
- Polycystic ovarian syndrome (PCOS), 403, 675
- Polycythemia, 670
- Polyhydramnios, 668
- Polypharmacy, 401, 406
- Polyunsaturated fatty acids, 424
- Polyuria, 182
- Pooled Cohort Equation, 696, 696
- Portion sizes, 132
- Positive glucose questioning, 211
- Postpartum care, 676–677
- Postpartum thyroiditis, 224
- Postprandial monitoring, 207–208
- Postural hypotension, 789
- Potassium, 620, 627
- Potassium-sparing diuretics, 535, 535
- PowerPoint, 64
- Pramlintide (Symlin®), 178, 205, 445, 495, 495–496
- Prandimet, 508
- Pravastatin (Pravachol®), 522, 523
- Prazosin (Minipress®), 544
- Preconception care, 662–666
 counseling, 666–667
- Prediabetes, 349, 351, 351
 medical nutrition therapy for, 118
- Pre-dialysis, 747
- Prediction, theory and, 87
- Pre-ESRD, 747
- Pre-exercise medical clearance, 143
- Pre-exercise testing, 458, 459
- Pregabalin, 784
- Pregnancy, 657
 AADE7 Self-Care Behaviors™ for, 670, 671, 672–676
 alcohol and, 660
 blood glucose goals during, 673
 calcium channel blockers and, 542
 clonidine and, 545
 continuous glucose monitoring in, 673
 diabetes complications, 668–670
 diabetes in, 662
 dietary reference intakes for, 661
 diuretics and, 535
 exercise modifications for, 152–153
 exercise prescription and, 457
 gestational diabetes mellitus during, 120
 healthy coping in, 675–676
 hypertension in, 668, 668
 insulin production in, 658, 658

- insulin pump therapy and, 674–675
 insulin requirements during, 674, 674
 insulin therapy in, 501
 labor and delivery, 676
 medications and, 674–675
 methyl dopa and, 545
 monitoring in, 672–674
 nonnutritive sweeteners and, 660
 normal, 658–662
 nutrition during, 120, 658–660, 659, 660
 pathophysiology of diabetes in, 667
 physical activity during, 661, 661, 672, 673
 physical activity modifications, 152–153
 preexisting diabetes during, 120
 problem solving and, 675
 safe eating during, 660–661
 self-monitoring of blood glucose in, 672
 standards of care, 282
 weight gain in, 658, 659
- Premeal insulin, 205
 Premixed insulins, 175, 205, 372–373, 497, 498
 Prepregnancy counseling, preventive care services, 286–287
 Preschoolers, 322–323
 developmental issues, 377
 psychosocial issues in type 1 diabetes, 376, 378
 Prevalence, vs incidence, 4
 Prevention and Public Health Fund, 19
 Prevention of diabetes, nutrition for, 119
 Preventive care services
 dental care, 286
 immunizations, 285–286
 pregnancy counseling, 286–287
 standards of care, 285–287
 Primary open-angle glaucoma (POAG), 728
 Private insurance, blood glucose meter selection and, 192–193
 Probenecid, 511
 Probiotics, 563, 573–574
 Problem solving, 155–156, 406, 585
 anticipated situational opportunities for, 238
 children and, 248
 components of, 238
 defining, 237
 in diabetes education, 242–244
 in diabetes self-management, 238–242
 direct knowledge vs, 238
 environment encouraging, 241–242
 in group settings, 245–246
 identifying and assessing problems and barriers, 239–241
 individual options, 245
 physical activity and, 452–453
 pregnancy and, 675
 for sick days, 624
 special considerations, 247–248
 theoretical model for, 237–238
 Problem-based learning (PBL), 62
 Problem-focused coping, 266
 Problems
 common areas, 240–241
 types of, 239
 Profound dehydration, 626
 Proliferative diabetic retinopathy (PDR), 733, 735
 Proliferative retinopathy, 731
Promotoras, 37
 Propranolol (Inderal®), 540
 Propranolol extended release (Inderal LA®), 540
 Proprotein convertase subtilisin/kexin type 9 inhibitors (PCSK9 inhibitors), 525, 525–526, 704
 Protamine, 498
 Protease inhibitors, 511
 Protein, glycemia and, 418–419
 Proton pump inhibitors, 181
 Proximal convoluted tubule, 746
 Proximal-motor neuropathy (amyotrophy), 795–796
 Pseudoephedrine, 180
Pseudomonas aeruginosa, 645
 Psychosocial assessment and care, standards of care, 279
 Psychosocial issues
 adolescents, 380–382
 infants and toddlers, 376
 preschoolers, 376, 378
 school-aged children, 378–379
 type 1 diabetes, 376, 378–382
 Psyllium (Metamucil®), 790
 Public health interventions, 403
 Public Health Service, US, 89
 Public Health Service Act, 20
 Pump therapy, meditation during, 599
 Pupillomotor response, 793
- Q**
- Qigong, 605
 Quality of life (QOL), 770
 neuropathic pain and, 782
 neuropathy and measures of, 776
 Quantitative sensory testing (QST), 772–773
 Quinapril (Accupril®), 536
- R**
- Radiculopathy, 778
 Ramipril (Alrace®), 536
 Ranibizumab (Lucentis®), 729, 735
 Rapid-acting insulin, 497, 497–498
 Rapidly reversible hyperglycemic neuropathy, 779
- Rapport, establishing with patient, 45
 Ratings of perceived exertion (RPEs), 455
 Readiness to change, 38, 39
 Red yeast rice, 577–578, 583
 Reflecting feelings, as active listening skill, 40
 Reflexology, 605
 Regimen adherence, obstacles to, 40
 Regimen review, 38
 Registered dietitian (RD), 116–117
 Registered dietitian nutritionist (RDN), 116–117, 412
 Rehabilitation facilities, 338
 Rehydration, 618, 627
 Relapse prevention strategies, for coping, 269
 Relationships, medication-taking behavior and, 171–172
 Relaxation, 604
 ReliOn, 502
 Renal impairment, 185
 Renal insufficiency, 627
 Renal pathophysiology, 747–748
 Renal physiology, 746–747
 Renal replacement therapies (RRTs), 745, 760
 Renin, 747
 Renin-angiotensin-aldosterone system (RAAS), 530–531, 531
 Repaglinide (Prandin®), 173, 205, 479, 483–484, 484
 Resistance exercise, 442
 Resistance (strength) training, 147–149
 for older adults, 154
 precautions, 148
 Respiratory distress syndrome (RDS), 670
 Retina, 725
 Retinopathy, 218–219, 219, 637
 exercise and, 461, 462
 exercise modifications for, 150
 standards of care, 281–282
 Reynolds Risk Score, 519
Rhizopus spp., 645
 Rifampin, 511
 Risk reduction, 275, 360, 406
 barriers, 288–289
 case study, 289–291
 personal care record, 288
 preventive care services, 285–287
 skills, 287–288
 standards of care, 276, 277, 278–283
 therapeutic goals, 283–285, 284, 285
 in type 2 diabetes, 356–357
 Rosiglitazone (Avandia®), 174, 205, 480, 508, 694
 Rosuvastatin (Crestor®), 522, 523, 703
- S**
- Salicylates, 511
 Salmonella, 660–661
 Satisfaction survey, 76, 76

- Saturated fats, 424
- Saxagliptin (Onglyza®), 174, 205, 445, 481, 493–495, 494, 509, 694
- School settings, diabetes care in, 379, 380
- School Walk for Diabetes, 69
- School-aged children, 322–323
developmental issues, 377
psychosocial issues in type 1 diabetes, 378–379
- Scope and Standards of Practice, 8
- Screen for early eating disorder signs (SEEDS), 260–261
- Second sight, 727
- Selective intestinal absorption inhibitors, 525, 525
- Selective-serotonergic agents, 477–478
- Self-care, dietary supplements, 585–586
- Self-care devices, 402
- Self-care skills, 51, 94
- Self-Determination Theory (SDT), 96–97, 97
- Self-directed behavior change, approaches to facilitate, 98–99, 99, 102–103
- Self-efficacy, 93, 155
self-monitoring of blood glucose and, 208
- Self-management education program. *See* Diabetes self-management education (DSME)
- Self-management skills, 51, 95
physical activity and, 450–453
- Self-monitoring, 46
checklist for, 190
- Self-monitoring of blood glucose (SMBG), 190–214, 396
adherence to, 208–209
alternative sites, 197
barriers to, 193, 195, 196–199
blood glucose targets, 199, 200
diabetes educators and, 191, 208
documenting results, 197–198
education checklist, 192
educator's role in adherence, 208–209
example regimens, 203–204
frequency of monitoring, 199–202, 201
individual needs for operational or interpretation skills, 198–199
interpretation skills, 199–209
interpreting records, 205–206
interpreting results, 204, 207–208
meter accuracy, 193
meter selection for, 191–193
operational skills, 191–193, 194
in pregnancy, 672
sample record, 207
situations requiring more frequent, 199
timing of checks, 206
uses of, 191
- Semmes-Weinstein monofilament exam, 220–221
- Serum markers, for abnormal bone and mineral metabolism, 753–754
- Sexual dysfunction, 649–650, 650, 791–792
- Sexually transmitted diseases (STDs), 381
- Shin spots, 643
- Short-acting insulin, 497, 497–498
- Sick-day management, 614, 615, 647
- Sildenafil (Viagra®), 790
- Simultaneous kidney-pancreas transplantation, 763
- Simvastatin (Zocor®), 522, 523, 530, 703
- Sitagliptin (Januvia®), 174, 205, 445, 481, 493–494, 494, 509, 695
- Skilled nursing facilities, 336–337
- Skin biopsy, 773, 774, 776
- Skin infections, 644–645
- Sleep apnea, 226
- Sleep-disordered breathing (SDB), 647
- Small-fiber neuropathy, 779, 780, 780–781, 781, 784
- SMART goal setting, 47, 155–156
- Smartphone applications, 245, 245
- Smoking
cardiometabolic risk and, 692
diabetic retinopathy and, 733
- Smoking cessation, 218, 702
standards of care, 281
- Snacking, 133
during physical activity, 450–451
- Social Cognitive Theory (SCT), 91–93, 92
- Social-environmental support, 156
- Society of Hospital Medicine, 624
- Socioeconomic factors, health disparities linked to, 56
- Sodium, 627–628
hypertension and, 426
in pain reliever products, 181
- Sodium bicarbonate, 620
- Sodium-glucose co-transporter 2 inhibitors (SGLT2 inhibitors), 175, 205, 330, 471, 473, 481, 490, 490–491, 694, 695
- Sorbitol, 797
- Special needs patients, self-monitoring of blood glucose needs, 198–199
- Special populations
assessment and, 36–37
coping considerations, 269–271
dietary supplements and implications for, 585–586
- Specific examples, in assessment, 38–39
- Spirolactone (Aldactone®), 535
- Sports, continuous subcutaneous insulin infusion and, 373
- Sports drinks, 447
- St John's wort, 578, 583–584
- Standards of care
blood glucose testing recommendations, 200
complications and, 639–640
promoting, 68–69
- Standards of Care
complications, 279–283
implementation resources, 283
preventive care services, 285–287
risk reduction, 276, 277, 278–283
- Standards of Medical Care, 97, 189, 703, 709
- Standards of practice, 8, 60
- Standards of Professional Performance, 8
- Stanford Diabetes Self-Management Program (DSMP), 93
- Staphylococcus* spp., 644
- Starches, 416
- Starvation ketosis, 449
- Static magnetic field therapy, 797
- Statin intolerance, 704
- Statin-associated muscle symptoms (SAMS), 523
- Statins, 522, 522–524, 524, 530, 703, 709. *See also* HMG-CoA reductase inhibitors
- Step-by-step approach, for goal setting, 44
- Steroids, 446
pretreatment for cardiac catheterization and angioplasty with, 712
- STOP-Bang questionnaire, 648
- Story catalogs, 57
- Storytelling, as teaching strategy, 56–57
- Strength training. *See* Resistance (strength) training
- Streptococcus* spp., 644
- Stress
assessment, 267–268
coping with, 257, 257
diabetes and, 359
gestational diabetes mellitus and, 684
identifying and managing, 268–269
physiologic reaction to, 268
- Stress management, for coping, 267–269
- Stretching, 442
- Stretching exercises, 149
- Strokes
early-warning symptoms, 713
prevention of, 712
recognizing signs of, 712–713
- Structured testing, 202
- Substance abuse, 381
- Sudomotor dysfunction, 792–793
- Sudomotor function, 774
- SUDOSCAN™, 774
- Sugar-free products, 180
- Sugars, 415–416
- Sugar-sweetened beverages (SSBs), 417

Sulfonamides, 512
 Sulfonylureas, 173–174, 185, 205, 330, 335, 401, 473, 479, 482, 482–483, 711. *See also specific drugs*
 Summarizing, as assessment-closing technique, 42
 Summative evaluation, 71, 72
 Survival skills. *See* Self-care skills
 Sympathomimetic agents, 476, 476–477
 Syndemic, 3
 Syringes, 501

T

Tacrolimus, 512
 Tadalafil (Cialis®), 790
 Tai Chi, 442, 605
 Talk test, 145
 Tarsal tunnel entrapment syndrome (TTS), 798
 Tarsal tunnel release surgery, 798
 Tarsal tunnel syndrome, 778
 Teaching environment, 66
 Teaching materials, 64–65
 Teaching strategies, 52–54, 53, 54
 across lifespan, 57–58
 storytelling as, 56–57
 Teens
 exercise prescription, 456–457
 insulin injection considerations, 371
 medication regimen and dosage, 371–372
 Telmisartan (Micardis®), 538
 Temporary visual changes, 730
 TENS therapy, 606
 Terazosin (Hytrin®), 544
 Test strips, as self-monitoring of blood glucose barrier, 193, 196
 Theoretical approaches, 86
 Theory
 appropriateness for practice or program, 88
 choosing, 87–88
 defining, 86
 for problem solving, 237–238
 purpose and, 86–87
 Theory of Planned Behavior (TPB), 93, 93–94
 Theory of Reasoned Action (TRA), 93, 93–94
 Therapeutic touch (TT), 606
 Therapist referral, 256
 Thiazide-type diuretics, 534, 534, 706
 Thiazolidinediones (TZDs), 174, 185, 205, 330, 401, 446, 473, 480, 486, 486–488, 694, 711, 715
 Thiocetic acid, 797
 Third Injection Technique Workshop in Athens (TITAN), 177

Thyroid
 autoimmune disease, 641
 monitoring, 224
 type 1 diabetes and disorders of, 384
 Thyroid products, 512
 Timolol (Blocadren®), 540
 Tinea pedis, 182
 Tissue damage mechanisms, 638–639
 Tocolytic agents, 675
 Tolazamide, 205, 482
 Tolbutamide, 205, 482
 Topical products, 182
 Topiramate, 476–477
 Traditional Chinese medicine (TCM), 602–603
 Trandolapril (Mavik®), 536
Trans fats, 424
 Transcutaneous electrical nerve stimulation (TENS), 606, 797
 Transformational Learning, 65
 Transient ischemic attack (TIA), 712–713
 Transition Care Model (TCM), 63
 Transitional care, 321
 adolescence to young adulthood, 323–328
 to correctional institutions, 337–338
 discharge to outpatient care, 332–333, 332–338
 hospital admission, 329, 329–331
 physical limitations and, 335
 recommendations/guidelines, 326–327
 to rehabilitation facilities, 338
 to skilled nursing facility or acute care hospital, 336–337
 teaching points, 325–326
 Transportation Security Administration (TSA), 196
 Transtheoretical Model (TTM), 94–96, 95
 TRA-TPB combined model, 93, 93–94
 Travel, meal planning and, 133
 Triamterene (Dyrenium®), 535
 Triglyceride treatments, 704
 Triglycerides (TGs), 517–518
 Troglitazone, 486
 Trust, 45
 T-score, 225, 225
 Tubular secretion, 746
 Turmeric, 564, 574
 TurningPoint®, 246
 Type 1 diabetes and pregnancy (T1DP), 657
 Type 1 diabetes mellitus (T1DM), 4
 A1C goals, 366
 in adults, 386–387
 aerobic exercise and, 441–442
 autoimmune disorders associated with, 384, 386, 641
 autoimmunity and, 354–355
 children and adolescents with, 121
 classification of, 351–352
 developmental issues, 377
 diabetic ketoacidosis and, 383–384, 611
 diagnosis, 366–368, 367, 386–387
 education in first week after diagnosis, 368–369
 exercise prescription for, 143
 eye examinations and, 736
 genetic propensity for, 353–354
 Health Belief Model applications, 90
 healthy coping, 375–382
 healthy eating in, 373–374
 hypoglycemia and, 382–383, 444, 445
 hypoglycemia prevention, 375
 medication regimen and dosage, 371–372
 medications, 371–373
 monitoring, 369–371
 monitoring frequency, 200, 201–202
 nutrition for management, 119
 nutrition therapy and, 427
 ongoing care, 385–386
 overview of, 365–366
 oxidative stress and, 354
 pathophysiology, 353, 353–355
 physical activity and, 374–375
 plasma blood glucose goals, 366
 pregnancy and, 667
 prevalence and incidence, 365, 708
 quarterly follow-ups, 385
 self-monitoring of blood glucose and, 200–202
 self-monitoring of blood glucose frequency recommendations, 201
 Social Cognitive Theory applications, 91
 standards of care and retinopathy, 281–282
 transition to adult care, 386
 TRA-TPB applications, 93
 treatment in adults, 387
 triggers for, 354
 type 2 overlap with, 357
 vaccinations and, 386
 yearly assessments and screenings, 385
 Type 2 diabetes and pregnancy (T2DP), 638, 657
 Type 2 diabetes mellitus (T2DM), 3, 4, 691
 AACE management algorithm, 469, 471, 472, 500, 640
 aerobic exercise and, 441
 cardiovascular disease and, 396
 in children and adolescents, 121, 184, 285, 394, 402–405
 classification of, 352
 clinical presentation, 393–394, 400
 combination oral medications for, 507, 508–509
 complication reduction, 396

diabetic ketoacidosis and, 612
 diagnosis, 395, 395
 exercise prescription for, 143
 eye examinations and, 736
 family member lifestyle changes and, 441
 Health Belief Model applications, 90
 heredity role in, 356
 hypoglycemia risk and, 444
 hypoglycemia treatment in, 507
 incidence and prevalence, 394
 individualized plans for, 396–398
 latent autoimmune diabetes in adults and, 357
 lifestyle interventions, 396
 management of, 470–471
 maturity-onset diabetes of the young and, 357–358
 monitoring frequency, 200–201
 nutrition for management, 119–120
 nutrition therapy and, 427–428
 in older adults, 400–402
 pathophysiology, 355–358
 pharmacologic interventions, 396–398
 physical activity role in prevention and treatment, 439–441
 pregnancy and, 667
 prevalence of, 708
 risk factors, 394–395
 risk reduction and intervention, 356–357
 self-care behaviors for, 405–406
 self-monitoring of blood glucose and, 200–202, 201
 sleep apnea and, 226
 Social Cognitive Theory applications, 91–92
 standards of care and retinopathy, 281–282
 TRA-TPB applications, 94
 Transtheoretical Model applications, 95
 treatment, 395–398
 type 1 overlap with, 357
 weight loss and, 223–224

U

Ultrafiltration, 762
 Ultralente, 205
 Ultrasonography, 738

United States, healthcare systems in, 16
 Unsaturated fats, 424
 Upper gastrointestinal dysfunction, 789–790
 Urinary albumin excretion, ACE inhibitor and ARBs for, 707–708
 Urine testing, 213–214
 for diabetic kidney disease/chronic kidney disease, 751
 US Pharmacopeia (USP), 182
 US Preventive Services Task Force (USPSTF), 677–678
 cardiovascular risk management recommendations, 708
 glaucoma screening recommendation, 728
 US Renal Data System (USRDS), 750
 USDA Choose My Plate, 130–131, 131

V

Vaccinations, 386
 VADT study, 358
 Valsartan (Diovan®), 538
 Vardenafil HCl (Levitra®), 790
 Varenicline (Chantix), 702
 Vascular endothelial growth factor (VEGF), 728–729
 Vegan eating, 123, 124
 Vegetarian eating, 123, 124
 Verapamil extended release (Covera-HS®; Verelan PM®), 542
 Verapamil immediate release (Calan®), 542
 Verapamil sustained release (Calan SR®), 542
 Very low-density lipoproteins (VLDL), 517–518
 Veterans, anxiety and coping in, 269–270
 Vibration, 797–798
 Vibratory sensation exam, 220
 Vildagliptin, 205
 Viral triggers, for type 1 diabetes, 354
 Visceral (metabolic) response, 793–795
 Vision loss, self-care and, 726
 Visual foot inspection, 220, 220, 221
 Visual impairment, exercise modifications for, 151
 Visualizing portion size, 132
 Visually impaired persons, self-monitoring of blood glucose needs, 198

Vitamin B₁₂, 642
 Vitamin D, 224, 746, 759
 older adults and, 428
 Vitamin K antagonists, 509
 Vitamin supplementation, 419
 Vitiligo, 644
 Vitreous surgery, 737

W

Warm-up phase, of exercise, 142
 Weight gain, in pregnancy, 658, 659
 Weight loss, 120, 223–224
 cardiovascular disease management and, 701
 effectiveness of, 421–422
 hypertension and, 425
 medications for, 423
 Weight management, 421–423
 standards of care, 278–279
 Weight monitoring, 223–224
 Whole-body medical systems, complementary health approaches, 601–603
 Women. *See also* Pregnancy
 anxiety and coping in, 269–270
 standards of care for pregnancy, 282
 World Health Organization (WHO), 394
 IMB model and, 706
 Written agreement, 44–45

X

Xigduo XR, 509

Y

Yeast infections, 182
 Yoga, 442, 605
 Young adulthood, transitional care in, 323–328

Z

Zika virus, 670
 Zinc, 498
 Zygomycosis, 645