Tools

The “tools section” provides useful material for providers as well as consumers. Information compiled here is intended to augment individual best practice guidelines by helping to inform and guide diabetes care. These tools should be tailored using individual training, background, and clinical judgment and those using these tools are responsible for appropriate use. (Supporting references for these tools are included at the end of each section in this document.)

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The “tools section” provides useful material for providers as well as consumers. Information compiled here is intended to augment individual best practice guidelines by helping to inform and guide diabetes care. These tools should be tailored using individual training, background, and clinical judgment and those using these tools are responsible for appropriate use. (Supporting references for these tools are included at the end of each section in this document.)

### CARDIOVASCULAR CARE

<table>
<thead>
<tr>
<th>Tool</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco Treatment Chart</td>
<td>48</td>
</tr>
<tr>
<td>Quit Tobacco Series: Plan to Quit</td>
<td>49</td>
</tr>
<tr>
<td>Quit Tobacco Series: What Happens When You Quit</td>
<td>50</td>
</tr>
</tbody>
</table>

### KIDNEY CARE

<table>
<thead>
<tr>
<th>Tool</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening and Initial Recommendations for Diabetic Kidney Disease Pathway</td>
<td>51</td>
</tr>
<tr>
<td>Chronic Kidney Disease: DVD Order Form</td>
<td>52</td>
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</tbody>
</table>

### EYE CARE

<table>
<thead>
<tr>
<th>Tool</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dilated Retinal Eye Exam Communication Form</td>
<td>53</td>
</tr>
<tr>
<td>Eye DVD Order Form</td>
<td>54</td>
</tr>
</tbody>
</table>

### NEUROPATHIES AND FOOT CARE

<table>
<thead>
<tr>
<th>Tool</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetic Foot Ulceration</td>
<td>55</td>
</tr>
<tr>
<td>Diabetic Foot Infection</td>
<td>56</td>
</tr>
<tr>
<td>Charcot Foot</td>
<td>57</td>
</tr>
<tr>
<td>Annual Comprehensive Diabetes Foot Exam Form</td>
<td>58</td>
</tr>
<tr>
<td>Diabetic Foot Screen for Loss of Protective Sensation</td>
<td>59</td>
</tr>
<tr>
<td>Shoes and Socks Off Poster – English</td>
<td>60</td>
</tr>
<tr>
<td>Shoes and Socks Off Poster – Spanish</td>
<td>61</td>
</tr>
</tbody>
</table>

### ORAL CARE

<table>
<thead>
<tr>
<th>Tool</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical-Dental: Team Referral Form</td>
<td>62</td>
</tr>
<tr>
<td>Diabetes: Screening Tool for Inspection of Gums and Teeth</td>
<td>63</td>
</tr>
</tbody>
</table>

### EMOTIONAL AND SEXUAL HEALTH CARE

<table>
<thead>
<tr>
<th>Tool</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Health Questionnaire (PHQ-9)</td>
<td>64</td>
</tr>
<tr>
<td>PHQ-9 Quick Depression Assessment – Instructions for Use</td>
<td>65</td>
</tr>
</tbody>
</table>

### PRECONCEPTION, PREGNANCY, AND POSTPARTUM CARE

<table>
<thead>
<tr>
<th>Tool</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>It’s Never Too Early to Prevent Diabetes</td>
<td>66</td>
</tr>
<tr>
<td>They Grow Up in the Blink of an Eye</td>
<td>67</td>
</tr>
</tbody>
</table>

### ASSESSING RISK AND PREVENTION OF TYPE 2 DIABETES

<table>
<thead>
<tr>
<th>Tool</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessing Risk and Testing for Type 2 Diabetes Pathway</td>
<td>68</td>
</tr>
<tr>
<td>American Diabetes Association Diabetes Risk Test</td>
<td>69</td>
</tr>
<tr>
<td>50 Tips to Prevent Type 2 Diabetes</td>
<td>70</td>
</tr>
</tbody>
</table>
PRESCRIPTION TEMPLATE: PRACTICE PREVENTION

PRACTICE PREVENTION: IT WORKS!

Name: __________________________

Date: __________________________

Follow-up: ______________________

Signatures: ______________________

_____________________

_____________________

Provider: ________________________

Patient: _________________________
## Body Mass Index Table for Adults

<table>
<thead>
<tr>
<th>Height (inches)</th>
<th>Body Weight (pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BMI 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54</td>
</tr>
</tbody>
</table>

GROWTH CHART: BOYS BODY MASS INDEX-FOR-AGE PERCENTILES, 2 TO 20 YEARS

2 to 20 years: Boys
Body mass index-for-age percentiles

Date | Age | Weight | Stature | BMI* | Comments
--- | --- | --- | --- | --- | ---

*To Calculate BMI: Weight (kg) / Stature (cm) = Stature (cm) x 10,000
or Weight (lb) / Stature (in) = Stature (in) x 703

Published May 30, 2000 (modified 10/16/03).
SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts
GROWTH CHART: BOYS WEIGHT-FOR PERCENTILES, BIRTH TO 24 MONTHS

Birth to 24 months: Boys
Head circumference-for-age and
Weight-for-length percentiles

Published by the Centers for Disease Control and Prevention, November 1, 2009
SOURCE: WHO Child Growth Standards (http://www.who.int/childgrowth/en/)

Wisconsin Diabetes Mellitus Essential Care Guidelines • 2012
WAIST CIRCUMFERENCE MEASUREMENT AND RISK ASSESSMENT

Although waist circumference and body mass index (BMI) are interrelated, waist circumference provides an independent prediction of risk over and above that of BMI. Waist circumference measurement is particularly useful in patients who are categorized as normal or overweight on the BMI scale. At a BMI ≥ 35 kg/m², waist circumference has little added predictive power of disease risk beyond that of BMI. It is therefore not necessary to measure waist circumference in individuals with a BMI ≥ 35 kg/m².

**Measuring Tape Position for Waist (Abdominal) Circumference**

The waist circumference at which there is an increased relative risk is defined as follows. Waist circumference cutpoints lose their incremental predictive power in patients with a BMI ≥ 35 kg/m² because these patients will exceed the cutpoints noted below. Lower thresholds for waist circumference have been recommended for Asian populations by the World Health Organization due to recent research findings.

<table>
<thead>
<tr>
<th>HIGH RISK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men: &gt; 102 cm (&gt; 40 in)</td>
</tr>
<tr>
<td>Women: &gt; 89 cm (&gt; 35 in)</td>
</tr>
</tbody>
</table>

Source: [www.nhlbi.nih.gov](http://www.nhlbi.nih.gov)
### DIABETES SELF-MANAGEMENT BEHAVIOR GOALS WITH GRAPHICS

<table>
<thead>
<tr>
<th>Self-Management Goals</th>
<th>Choose a goal(s) that is realistic and obtainable. Use the extra space to personalize your goal(s).</th>
<th>Follow-up Date/Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal 1: Be Active</strong></td>
<td>![Icon] (image of people walking)</td>
<td></td>
</tr>
<tr>
<td><strong>Goal 2: Healthy Eating</strong></td>
<td>![Icon] (image of fruits and vegetables)</td>
<td></td>
</tr>
<tr>
<td><strong>Goal 3: Taking Medicine</strong></td>
<td>![Icon] (image of pills)</td>
<td></td>
</tr>
<tr>
<td><strong>Goal 4: Monitoring</strong></td>
<td>![Icon] (image of a blood glucose meter)</td>
<td></td>
</tr>
<tr>
<td><strong>Goal 5: Problem Solving</strong></td>
<td>![Icon] (image of a light bulb and a puzzle)</td>
<td></td>
</tr>
<tr>
<td><strong>Goal 6: Reducing Risk</strong></td>
<td><em>I will decrease my risk of complications through these preventive care goals:</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Lower or maintain my A1C at ____________</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Get a dilated eye exam</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Have a fasting lipid panel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Check my kidney function</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Stop tobacco use</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- See my provider every 3 to 6 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Have my blood pressure checked each visit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Get a flu shot each year and pneumonia shot</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Check my own feet daily</td>
<td></td>
</tr>
<tr>
<td><strong>Goal 7: Healthy Coping</strong></td>
<td>![Icon] (image of a smiley face)</td>
<td></td>
</tr>
</tbody>
</table>

List additional goal: __________________________
### Diabetes Self-Management Behavior Goals Without Graphics

<table>
<thead>
<tr>
<th>Self-Management Goals</th>
<th>Choose a goal(s) that is realistic and obtainable. Use the extra space to personalize your goal(s).</th>
<th>Follow-up Date/Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal 1:</strong> Be Active</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Goal 2:</strong> Healthy Eating</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Goal 3:</strong> Taking Medicine</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Goal 4:</strong> Monitoring</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Goal 5:</strong> Problem Solving</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Goal 6:</strong> Reducing Risk</td>
<td>I will decrease my risk of complications through these preventive care goals:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Lower or maintain my A1C at _____________</td>
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<tr>
<td></td>
<td>- Get a dilated eye exam</td>
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<tr>
<td></td>
<td>- Have a fasting lipid panel</td>
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<tr>
<td></td>
<td>- Check my kidney function</td>
<td></td>
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<tr>
<td></td>
<td>- Stop tobacco use</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- See my provider every 3 to 6 months</td>
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<td></td>
<td>- Have my blood pressure checked each visit</td>
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<tr>
<td></td>
<td>- Get a flu shot each year and pneumonia shot</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Check my own feet daily</td>
<td></td>
</tr>
<tr>
<td></td>
<td>List additional goal: __________________________</td>
<td></td>
</tr>
<tr>
<td><strong>Goal 7:</strong> Healthy Coping</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

Wisconsin Diabetes Mellitus Essential Care Guidelines • 2012
FOLLOW-UP INSTRUCTION FORM FOR A PERSON WITH DIABETES

Name: ___________________________ Date: ___________________________

Provider: ___________________________ Educator: ___________________________

Goals:
1. _______________________________________________________________________
2. _______________________________________________________________________

Medicine Changes:
1. _______________________________________________________________________
2. _______________________________________________________________________
3. _______________________________________________________________________
4. _______________________________________________________________________
5. _______________________________________________________________________

Blood Sugar Testing:

<table>
<thead>
<tr>
<th>DATE</th>
<th>BEFORE BREAKFAST</th>
<th>AFTER BREAKFAST</th>
<th>BEFORE LUNCH</th>
<th>AFTER LUNCH</th>
<th>BEFORE DINNER</th>
<th>AFTER DINNER</th>
<th>BEDTIME</th>
<th>2 TO 3 AM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Call (___________) or fax (___________) your blood sugars on (___________)

Phone number _______________________________________________________________________

When you fax or phone in blood sugars, please give us a phone number so that we can call you.

Phone number _______________________________________________________________________

Health Literacy Universal Precautions Toolkit
AHRQ Pub. No. 10-0046-EF
Available at: http://www.nchealthliteracy.org/toolkit/tool6A.doc
COMPLEMENTARY PROGRAMS TO SUPPORT SELF-MANAGEMENT FOR PEOPLE WITH DIABETES

The evidenced-based Stanford Chronic Disease Self-Management Program (CDSMP) known as Living Well with Chronic Conditions in Wisconsin compliments the American Diabetes Association Diabetes Self-Management Education (DSME) Program. The differences between these two programs are explained below.

<table>
<thead>
<tr>
<th>DSME</th>
<th>CDSMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific to diabetes</td>
<td>Addresses all chronic conditions</td>
</tr>
<tr>
<td>Participants all have diabetes</td>
<td>Participants have a variety of chronic conditions</td>
</tr>
<tr>
<td>Focuses on knowledge, skills and problem solving</td>
<td>Focuses on problem solving/action planning</td>
</tr>
<tr>
<td>Is content-oriented</td>
<td>Is process-oriented</td>
</tr>
<tr>
<td>Professional educators</td>
<td>Lay person who has chronic condition</td>
</tr>
<tr>
<td>Focuses on medical management and self-management of disease</td>
<td>Focuses on management of lifestyle behaviors and integrates emotional aspects</td>
</tr>
<tr>
<td>10 hours (1-2 hours individual counseling; 8-9 hours in group)</td>
<td>15 hours, all in group (2.5 hours/week for 6 weeks)</td>
</tr>
<tr>
<td>Standard content for ADA recognized DSME programs to implements national standards</td>
<td>Content scripted with no deviation; timed processes for each session</td>
</tr>
<tr>
<td>Content areas:</td>
<td>Content areas:</td>
</tr>
<tr>
<td>• Diabetes disease process and treatment options</td>
<td>• Anger, frustration, fear, stress, anxiety</td>
</tr>
<tr>
<td>• Incorporating nutrition management, physical activity, and utilizing medication(s)/insulin</td>
<td>• Techniques to deal with problems such as fatigue, pain, and isolation</td>
</tr>
<tr>
<td>• Monitoring blood glucose and using results to self-manage and improve control</td>
<td>• Appropriate physical activity for strength, flexibility, and endurance</td>
</tr>
<tr>
<td>• Preventing, detecting, and treating acute and chronic complications</td>
<td>• Using medications appropriately</td>
</tr>
<tr>
<td>• Goal setting and problem solving</td>
<td>• Communicating effectively with family, friends, and health professionals</td>
</tr>
<tr>
<td>• Integrating psychosocial adjustment</td>
<td>• Overcoming barriers to healthful eating</td>
</tr>
<tr>
<td>• Preconception care and management during pregnancy (if applicable)</td>
<td>• Evaluating new treatments</td>
</tr>
</tbody>
</table>

DSME addresses more content in fewer hours, typically engaging people soon after diabetes is diagnosed. Hence, the focus is on gaining knowledge/skills for diabetes self-management and solving problems. DSME and CDSMP complement each other, and provide disease-specific knowledge and skills along with practical problem-solving and action planning.

CDSMP is a good complement to the ADA recognized DSME programs because people who have diabetes typically have other chronic conditions and stressful issues at home competing for their time and attention. Compared to diabetes “support” groups, the CDSMP has more structure and accountability.

Adapted from Vermont Department of Health 3/17/05
# DIABETES SELF-MANAGEMENT EDUCATION RECORD

**NAME:** ____________________________________________________________       **DATE:** ______/______/__________

**Diabetes Type (check):**

- [ ] Type 1  
- [ ] Type 2  
- [ ] Pre-diabetes  
- [ ] Preconception  
- [ ] Pregnancy  
- [ ] Gestational  

**INITIAL VISIT (Date):**  

<table>
<thead>
<tr>
<th>CHANGES IN READINESS/BARRIERS</th>
<th>(Date, Initials, Comments)</th>
</tr>
</thead>
</table>

- [ ] Yes  
- [ ] No  

- Yes No Demonstrates ability to understand.  
- Yes No Asking questions.  
- Yes No Indicates need for clarification.  

**Instructions Given to:** ________________________________  

**PRE-PROGRAM ASSESSMENT/POST-PROGRAM OUTCOME CODES**

- I = Instructed  
- AV = Audiovisual  
- R = Review/Reinstruct  
- D = Demonstrated  
- H = Handout  
- * = See comments/note  

**LEARNNG NEEDS:** (Document those that apply on the lines below.)  

**Pre-Program Assessment/Post-Program Outcome Codes**

<table>
<thead>
<tr>
<th>Teaching Activity Key (TAK)</th>
<th>Pre-Program Assessment/Post-Program Outcome Codes</th>
</tr>
</thead>
</table>
| I = Instructed               | AV = Audiovisual  
| R = Review/Reinstruct       | D = Demonstrated  
| H = Handout                 | * = See comments/note  

<table>
<thead>
<tr>
<th>Topic/Outcome</th>
<th>Verbalizes/demonstrates</th>
<th>Pre-Program Assessment code/initial/date</th>
<th>Teaching Activity Key (code/initial/dates)</th>
<th>Post-Program Outcomes code/initial/date</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Disease Process and Overview</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Definition, types, diagnostic criteria</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Causes, risk factors, symptoms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-management education/MNT/DSME</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Treatment options and need for control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Importance of diabetes control, ongoing education, and possible treatment changes</td>
<td></td>
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<tr>
<td>B. Psychosocial</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effect of stress on blood glucose</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthy coping strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community resources and support systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression risk screening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Nutrition*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effect of timing, amt, and type of carb on BG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effect of weight status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategies for weight management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding of personalized meal plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nutrition strategies for lipid, BP management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding of nutrition labels in meal planning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effects of alcohol on BG (hypoglycemia)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding of healthy food prep (cooking methods, recipe modification)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthy dining out practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills for adapting meal plan to altered meal times, travel, holidays, sick days, schedule changes, unplanned physical activity</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Understanding of nutritional/herbal supplements on diabetes control</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>D. Physical Activity</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Effects of physical activity on BG (general health benefits)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Develop a physical activity plan/goals (types, frequency, duration, intensity)</td>
<td></td>
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</tr>
<tr>
<td>Guidelines for a safe activity (stress test, hypoglycemia prevention)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Adjusting food and BG testing for planned or unplanned activity</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

[Tools]

Wisconsin Diabetes Mellitus Essential Care Guidelines • 2012

28
### E. Medication – Insulin*/Oral Medication(s)/Other Injectables

| Insulin (type, dose, schedule, action, preparation, injection technique, delivery devices, side effects) |
| Storage of insulin and disposal of sharps |
| Pattern management |
| Pre-meal correction bolus; insulin:carb ratio |
| Insulin adjustments/supplements (meals, activity, changes, travel, surgery) |
| Basic pump information |
| Oral medication(s) (name, dose, action, schedule, side effects) |
| OTC medications |
| Other injectables |

### F. Monitoring*

| Blood Glucose (purpose, testing times, care of meter/strip, correct technique, log, meter Q/A, alternative site testing, lancet disposal) |
| Blood glucose targets: |
| Factors affecting BG levels |
| Action for results outside target range |
| A1C (define, state goal, test schedule) |
| Urine Ketone Testing (why, when, how) |

### G. Acute complications* (prevent, detect, treat)

| Hypoglycemia (risk, causes, signs, symptoms, treatment, prevention) |
| Hypoglycemia unawareness |
| Problem solving: contact MD/diabetes team |
| Glucagon (prescription); support person instructed |
| Safe driving practices; need for medical ID use |
| Hyperglycemia (risk, causes, signs, symptoms, treatment, prevention) |
| Sick Day (effect of illness on BG and guidelines for sick day self-care) |
| Problem solving: contacting medical provider |

### H. Chronic Complications (prevent, detect, treat)

| Risk reduction strategies (controlling BG and HTN, smoking cessation, increased activity, diet, wt/BMI reduction) |
| DM-focused visits every 3-6 months |
| Tests (A1C, lipids, albumin/creatinine ratio, eGFR) |
| Annual dilated eye (with drops in eyes) |
| Dental visits and proper oral health care |
| Annual comprehensive lower extremity exam |
| Teach self-foot exam, routine foot care/foot wear; S/S of problems/infection and contact MD/team |
| Immunizations |
| Skin care/hygiene |

### I. Goal setting and problem solving

| Problem solving strategies |
| Behavior change strategies |
| Personal self-care goals (AADE7™) |

### J. Preconception care/pregnancy/gestational

| Preconception counseling/care, good BG control |
| BG control prior to conception and during pg |
| Maternal and fetal risk and complications with poor control |
| Monitoring and care frequency when pregnant |
| Gestational: treatment, BG monitoring/goals, F/U testing postpartum, risk reduction |

* denotes survival skills

<table>
<thead>
<tr>
<th>Signature/Initial/Date</th>
<th>Signature/Initial/Date</th>
</tr>
</thead>
</table>
### DIABETES FLOW SHEET/CHART AUDIT TOOL

**Name ____________________________________     ID ________________ _    Birthdate _______/_______/________**

**Type of Diabetes:**  
- [ ] Type 1  
- [ ] Type 2  
- [ ] Gestational  
- [ ] Other  

**Date of Dx: _______/_______/________**

**SBGM:**  
- [ ] Yes  
- [ ] No  

**Treatment (check all that apply):**  
- Insulin  
- Oral Medication(s)  
- Diet  
- Physical Activity

**Instructions:** Please indicate date of exam/test, "A" for abnormal or "N" for normal, as well as the actual results, when appropriate (e.g., lab value), "D" if done elsewhere, and "R" if referred. Write additional explanations in the patient’s clinical notes.

<table>
<thead>
<tr>
<th>General Recommendations for Care</th>
<th>date/results</th>
<th>date/results</th>
<th>date/results</th>
<th>date/results</th>
<th>date/results</th>
<th>date/results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review management plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type 1: every 3 months</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Type 2: every 3-6 months</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Review physical activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>each visit</td>
<td></td>
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<tr>
<td>Weight</td>
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<tr>
<td>Height</td>
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<td></td>
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<tr>
<td>BMI</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Self-Management Education**  
At diagnosis, then every 6-12 months or more as needed

**Medical Nutrition Therapy**  
At diagnosis or first referral to RD: 3 to 4 visits, completed in 3 to 6 months. Then 1-2 hours annually.

**Glycemic Control**  
A1C test every 3-6 months

**Cardiovascular Care**  
- Fasting lipid profile  
  - Children: after age 2 but before age 10, repeat annually if abnormal  
  - Adults: annually

- Total Cholesterol
- TG
- HDL
- Non-HDL
- LDL
- Blood pressure each visit
- Tobacco use status each visit
- Tobacco cessation referral if indicated
- Aspirin therapy if indicated

**Kidney Care**  
- Albumin to creatinine ratio Type 1: begin with puberty or after 5 yrs duration, then annually  
  - Type 2: at dx, then annually

- Protein to creatinine ratio annually after microalbumin > 300 mg/24 hrs

- Serum creatinine for eGFR annually

- ACE/ARB therapy

**Eye Care**  
- Dilated eye exam Type 1: if age > 10 years, within 3-5 years of onset, then annually  
  - Type 2: At diagnosis, then annually

**Neuropathies and Foot Care**  
- Inspect bare feet and stress self-exam each visit
- Comprehensive lower extremity exam annually

**Oral Care**  
- Inspect gums and teeth each visit
- Refer to dentist every 6 months

**Emotional and Sexual Health Care**  
- List: _____________________________
- List: _____________________________

**Immunizations**  
- Influenza annually
- Pneumococcal once; revaccination per ACIP

**Preconception and Pregnancy Care**  
- Assess contraception/discuss family planning at diagnosis and each focused visit during childbearing yrs
- Preconception consult 3-4 months prior to conception
- Screen for type 2 diabetes post-GDM
MEAL PLANNING WITH THE PLATE METHOD: LUNCH/DINNER

The Plate Method is a method of meal planning that provides an even distribution of carbohydrates, a lower fat intake, and a greater amount of fruits and vegetables. Plan your meals by dividing up your plate in this way:

- Starch or Bread, Fruit, and Milk food groups raise blood sugar.
- Low carbohydrate vegetables raise blood sugar in tiny amounts.
- Meat/Protein foods raise blood sugar in tiny amounts.

2. Other Plate Method Resources: Idaho Plate Method: [http://www.platemethod.com]
3. Prescription Solutions: [https://www.prescriptionsolutions.com/vgnlive/HCP/Assets/PDF/PlatePlannerEnglish_LetterSize_UPDATED.pdf]
El método de platos es un método de planificación de comidas que proporciona una distribución uniforme de los carbohidratos, un consumo más bajo de grasa y una mayor cantidad de frutas y vegetales. Planifique sus comidas al dividir sus platos de la manera siguiente:

El grupo de alimentos tales como almidón y pan, frutas y leche elevan el nivel de azúcar en la sangre.

Los vegetales con pocos carbohidratos elevan muy poco el nivel de azúcar en la sangre.

Las carnes o proteínas elevan muy poco el nivel de azúcar en la sangre.

2. Other Plate Method Resources: Idaho Plate Method: http://www.platemethod.com
SEVEN WAYS TO SIZE UP YOUR SERVINGS

Measure food portions so you know exactly how much food you’re eating. When a food scale or measuring cups aren’t handy, you can still estimate your portions.

Remember:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3 ounces of meat is about the size and thickness of a deck of playing cards or an audiocassette tape.</td>
</tr>
<tr>
<td>2</td>
<td>A medium apple or peach is about the size of a tennis ball.</td>
</tr>
<tr>
<td>3</td>
<td>1 ounce of cheese is about the size of 4 stacked dice.</td>
</tr>
<tr>
<td>4</td>
<td>1/2 cup of ice cream is about the size of a racquetball or tennis ball.</td>
</tr>
<tr>
<td>5</td>
<td>1 cup of mashed potatoes or broccoli is about the size of your fist.</td>
</tr>
<tr>
<td>6</td>
<td>1 teaspoon of butter or peanut butter is about the size of the tip of your thumb.</td>
</tr>
<tr>
<td>7</td>
<td>1 ounce of nuts or small candies equals one handful.</td>
</tr>
</tbody>
</table>

MOST IMPORTANT

If you’re cutting calories, remember to keep your diet nutritious:

- 2-4 servings/day from the Milk Group for calcium
- 3-5 servings/day from the Vegetable Group for vitamin A
- 2-3 servings/day from the Meat Group for iron
- 2-4 servings/day from the Fruit Group for vitamin C
- 6-11 servings/day from the Grain Group for fiber

Courtesy of the National Dairy Council.

Other Portion Control Resources: Prescription Solutions: https://www.prescriptionsolutions.com/vgnlive/HCP/Assets/PDF/PlatePlannerEnglish_LetterSize_UPDATED.pdf

National Heart Lung and Blood Institute website: www.nhlbi.nih.gov/
## SEVEN WAYS TO SIZE UP YOUR SERVINGS – SPANISH

Mida las porciones de comida para saber exactamente cuánto está comiendo. Cuando una pesa de comida o las tazas de medida no resulten prácticas, todavía puede estimar sus porciones.

### Recuerde:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3 onzas de carne es más o menos el tamaño y espesor de un mazo de cartas o un cassette de audio.</td>
</tr>
<tr>
<td>2</td>
<td>La mitad de una manzana o melocotón es más o menos el tamaño de una bola de tenis.</td>
</tr>
<tr>
<td>3</td>
<td>1 onza de queso es más o menos el tamaño de 4 dados apilados.</td>
</tr>
<tr>
<td>4</td>
<td>1/2 taza de helado es más o menos el tamaño de una bola de ránquetbol o tenis.</td>
</tr>
<tr>
<td>5</td>
<td>1 taza de puré de papas o brócoli es más o menos el tamaño de su puño.</td>
</tr>
<tr>
<td>6</td>
<td>1 cucharadita de mantequilla o crema de cacahuete es más o menos el tamaño de la punta de su dedo pulgar.</td>
</tr>
<tr>
<td>7</td>
<td>1 onza de nueces o caramelos pequeños es igual a un manojo.</td>
</tr>
</tbody>
</table>

### LO MÁS IMPORTANTE

Si está reduciendo calorías, recuerde mantener una dieta nutritiva:

- 2 a 4 porciones por día del grupo de lácteos para calcio
- 3 a 5 porciones por día del grupo de vegetales para vitamina A
- 2 a 3 porciones por día del grupo de carnes para hierro
- 2 a 4 porciones por día del grupo de frutas para vitamina C
- 6 a 11 porciones por día del grupo de granos para fibra
HOW TO USE A FOOD LABEL TO SELECT FOODS – ENGLISH

1. **Locate the serving size**
   - The information on the label is for this serving size.
   - How does it compare to your serving size?

2. **Locate the total carbohydrate grams (g)**
   - **Women**: 150-180 g total carbohydrate per day
     - 45-60 g per meal
     - 0-15 g per snack
   - **Men**: 200-225 g total carbohydrate per day
     - 60-75 g per meal
     - 0-30 g per snack
   - 15 g carbohydrate = 1 carbohydrate serving

3. **Locate dietary fiber grams (g)**
   - Aim for 25-35 g fiber per day.
   - Aim for 3-5 g fiber per serving.
   - Fiber does not turn to sugar like other carbohydrate does.
   - You can divide the dietary fiber amount on your label by 2 and subtract half of the dietary fiber grams from the total carbohydrate grams.

   \[ \text{Total carb grams (30)} - \text{Dietary Fiber grams (10/2 = 5)} = \text{Net carb grams that you count (30 – 5 = 25)} \]
   - Soluble fiber may help lower cholesterol levels.
   - Soluble fiber sources = oats, beans, lentils, vegetables, fruits.

4. **Locate total fat grams (g)**
   - **Women**: 60 g fat or less per day
     - 15 g or less as saturated fat
   - **Men**: 75 g fat or less per day
     - 20 g or less as saturated fat
   - “Low fat” = less than 3 g fat per serving.
   - Choose cheese with less than 5 g total fat per ounce.
   - Choose frozen entrees with less than 15 g total fat each.

5. **Locate cholesterol milligrams (mg)**
   - Aim for 200 mg cholesterol or less per day.
   - Cholesterol is found in animal foods (meat, egg, milk, cheese, butter, etc.).

6. **Locate sodium milligrams (mg)**
   - Aim for 1500 mg sodium or less per day.
   - Choose frozen entrees with less than 800 mg sodium.

---

**Nutrition Facts**

<table>
<thead>
<tr>
<th>Amount Per serving</th>
<th>% Daily Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories 148</td>
<td>2%</td>
</tr>
<tr>
<td>Calories from Fat 9</td>
<td>1%</td>
</tr>
<tr>
<td>Total Fat 1 g</td>
<td>2%</td>
</tr>
<tr>
<td>Saturated Fat 0g</td>
<td>0%</td>
</tr>
<tr>
<td>Trans Fat 0g</td>
<td>0%</td>
</tr>
<tr>
<td>Cholesterol 0mg</td>
<td>0%</td>
</tr>
<tr>
<td>Sodium 86mg</td>
<td>4%</td>
</tr>
<tr>
<td>Total Carbohydrate 30g</td>
<td>10%</td>
</tr>
<tr>
<td>Dietary Fiber 10g</td>
<td>41%</td>
</tr>
<tr>
<td>Sugars 6g</td>
<td>41%</td>
</tr>
<tr>
<td>Protein 14g</td>
<td></td>
</tr>
</tbody>
</table>

©www.NutritionData.com

Adapted from material provided by: UW Health Medical Foundation, Health Education and Nutrition Department.
CÓMO USAR LAS ETIQUETAS DE COMIDAS PARA SELECCIONARLAS

1. Localice el tamaño de la porción
   - La información en la etiqueta es para este tamaño de porción.
   - ¿Cómo se compara al tamaño de su porción?

2. Localice los gramos (g) totales de carbohidratos
   - **Mujeres**: 150 a 180 g totales de carbohidratos por día
     45 a 60 g por alimento 0 a 15 g por bocadillo
   - **Hombres**: 200 a 225 g totales de carbohidratos por día
     60 a 75 g por alimento 0 a 30 g por bocadillo
   - 15 g de carbohidratos = 1 porción de carbohidratos

3. Localizar los gramos (g) de fibra dietética
   - Procure consumir de 25 a 35 gramos de fibra por día.
   - Procure consumir de 3 a 5 gramos de fibra por porción.
   - La fibra no se convierte en azúcar como lo hacen otros carbohidratos.
   - Puede sustraer la mitad de los gramos de fibra dietética del total de gramos de carbohidratos.

   **Gramos totales de carbohidratos (30)**
   - **Gramos de fibra dietética (10/2 = 5)**
   - **Gramos de carbohidratos netos que usted cuenta (30 – 5 = 25)**

   - Las fibras solubles ayudan a bajar los niveles de colesterol.
   - Fuentes de fibras solubles = avenas, frijoles, lentejas, vegetales y frutas.

4. Localizar los gramos (g) totales de grasa
   - **Mujeres**
     - 60 g de grasa o menos por día
     - 15 g o menos de grasa saturada
   - **Hombres**
     - 75 g de grasa o menos por día
     - 20 g o menos de grasa saturada
   - “Grasa baja” = menos de 3 g de grasa por porción.
   - Escoja un queso con menos de 5 g de grasa total por onza.
   - Escoja platos congelados con menos de 15 g de grasa total cada uno.

5. Localice los miligramos de colesterol (mg)
   - Procure consumir 200 mg o menos de colesterol por día.
   - El colesterol se encuentra en comidas que provienen de animales (carne, huevo, leche, queso, mantequilla y otros).

6. Localice los miligramos de sodio (mg)
   - Procure consumir 1500 mg o menos de sodio por día.
   - Escoja platos congelados que tengan menos de 800 mg de sodio.

Adaptado del material proporcionado por la Fundación Médica y de Salud UW, Departamento de Educación de la Salud y Nutrición.
UNDERSTANDING SUGAR ALCOHOLS

- Sugar alcohol is incompletely absorbed.
- Only half of the sugar in sugar alcohol will be absorbed and will affect blood sugar.

### Nutrition Facts - Lainie’s Cookies
Serving Size 4 Cookies (34 g)

<table>
<thead>
<tr>
<th>Amount Per serving</th>
<th>Calories from Fat 80 % Daily Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories 200</td>
<td>80</td>
</tr>
<tr>
<td>Total Fat 9 g</td>
<td>14%</td>
</tr>
<tr>
<td>Saturated Fat 3g</td>
<td>15%</td>
</tr>
<tr>
<td>Trans Fat 0g</td>
<td></td>
</tr>
<tr>
<td>Sodium 85mg</td>
<td>4%</td>
</tr>
<tr>
<td>Total Carbohydrate 24g</td>
<td>8%</td>
</tr>
<tr>
<td>Dietary Fiber 2g</td>
<td>8%</td>
</tr>
<tr>
<td>Sugar Alcohol 6g</td>
<td></td>
</tr>
<tr>
<td>Protein 2g</td>
<td></td>
</tr>
</tbody>
</table>

Vitamin A 0%  Iron 10%

Not a significant source of trans fat, cholesterol, sugars, vitamin C, calcium.

*Percent Daily Values are based on a 2000 calorie diet.
Ingredients: None listed for this example.

**Example: Calculating Sugar Alcohol**

- Total carbohydrate per serving = 24 grams
- Total sugar alcohol = 6 grams
- Divide total sugar alcohol by 2. (6 ÷ 2 = 3) Thus one-half of the sugar in the sugar alcohol per serving is: 3 grams of carbohydrate

**Total Carbohydrate per serving accounting for sugar alcohol is:**

- 24 grams of carbohydrate - 3 grams of carbohydrate from sugar alcohol = 21 grams of carbohydrate
**Type 2 Diabetes: Ambulatory Glycemic Control Pathway**

### Diagnosis of Type 2 Diabetes

1. **Initial Intervention**
   - **Lifestyle Intervention**
     - Refer for Medical Nutrition Therapy (MNT)
     - Refer for Diabetes Education, preferably with a Certified Diabetes Educator (CDE)
   - **Start Pharmacological Therapy**

### A1C > 10.0%

- **Start Metformin plus Basal Insulin**

### A1C < 7.0%

- **Start monotherapy (Metformin)**

### A1C 9-10%

- **Start dual therapy (Metformin + Sulfonylurea)**

### A1C > 7.0%

- **Add Sulfonylurea**
- **Maximize treatments**

### A1C > 7.0%

- **Add GLP-1 Agonist, DPP-IV, or Pioglitazone**

### A1C > 7.0%

- **Add or modify Basal Insulin**

---

**Footnotes:**
1. See tools “Diabetes Mellitus Medications 2012” and “Insulin Therapy 2012” for specific dosing information
2. Some agents mainly affect basal hyperglycemia, others target post-prandial hypoglycemia. Control of basal hyperglycemia is usually the first task.
3. Check A1C three months after titration to maximize effective dose
4. Increased risk of hypoglycemia if A1C is < 7.5%
5. If using < 30 units of basal insulin, will likely be able to titrate off insulin

**Disclaimer:** Throughout therapy use, assess for frequency, severity, and unexplained episodes of hypoglycemia.
## INTERVENTION / TREATMENT PEARLS 2012

<table>
<thead>
<tr>
<th>Intervention/Treatment</th>
<th>Expected decrease in A1C with monotherapy (%)</th>
<th>Primary Action</th>
<th>When to Choose/Use</th>
<th>Cost</th>
</tr>
</thead>
</table>
| Lifestyle changes in diet/physical activity to promote weight loss | 1.0-2.0                                       | Broad benefits to health              | • Improvement in lifestyle possible  
• Person can begin immediately                                                      | Free-$ |
| Metformin                                                 | 1.0-2.0                                       | Lowers fasting plasma glucose         | • All patients unless contraindicated or not tolerated                             | $     |
| Sulfonylurea                                               | 1.0-2.0                                       | Lowers fasting plasma glucose         | • Second agent for most patients  
• Hypoglycemia risk high                                                            | $     |
| Alpha Glucosidase Inhibitors                              | 0.5-1.0                                       | Lowers post-prandial glucose          | • Slow carbohydrate  
• Taken orally                                                                         | $-$$ |
| Meglitinides                                               | 0.5-1.5                                       | Lowers post-prandial glucose          | • Sulfa allergy  
• Lower risk hypoglycemia                                                              | $$-$$|
| Pioglitazone                                               | 0.6-1.0                                       | Lowers post-prandial glucose          | • Insulin resistance high  
• High triglycerides and low HDL if using maximum dose                             | $$-$$$|
| GLP-1 Agonist                                              | 0.8-1.5                                       | Lowers post-prandial and fasting glucose | • Weight loss desired  
• No hypoglycemia                                                                    | $$$   |
| DPP-IV Inhibitors                                         | 0.6-0.8                                       | Lowers post-prandial glucose          | • Weight neutral  
• Taken orally  
• May use in renal insufficiency                                                      | $$$   |
| Pramlintide                                                | 0.4-0.6                                       | Lowers post-prandial glucose          | • Wide fluctuating post-prandial glucose                                          | $$$   |

**Guiding Principles:**

- The tool “Type 2 Diabetes: Ambulatory Glycemic Control Pathway” provides a framework for approaching the management of type 2 diabetes
- Use the tool “Diabetes Mellitus Medications 2012” for specific drug-related information
- General Glycemic control goals: A1C < 7.0% (always individualize); Fasting Plasma Glucose (FPG) 70-130 mg/dL; two-hour post-prandial < 180 mg/dL
- Selection of medications should be based on patterns of hyperglycemia (e.g., elevated FPG and/or elevated post-prandial)
- Medication should be titrated to maximal effective doses
## Oral Glucose-Lowering Agents

<table>
<thead>
<tr>
<th>Drug Class: Sulfonylureas</th>
<th>Actions: Stimulates insulin secretion; lowers fasting plasma glucose</th>
<th>Indications: Type 2 diabetes as monotherapy or in combination with insulin, metformin, DPP-IV inhibitors, incretin mimetics, or TZDs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glipizide</td>
<td>5 mg / 10 mg 2.5 mg / day Increase by 2.5 mg to 5 mg (&gt; 15 mg/day = BID) after 1-2 wks</td>
<td>Usual (elderly) Max. Effective Dose A1C Lowering Wt Renal Dosing Hepatic Dosing Lab Monitoring Common Side Effects Contraindications/ Precautions</td>
</tr>
<tr>
<td>Glipizide ER</td>
<td>2.5 mg / 5 mg / 10 mg 5 mg/day Increase by 5 mg after 1-2 wks</td>
<td>5-10 mg/day 20 mg/day</td>
</tr>
<tr>
<td>Glyburide</td>
<td>1 mg 2 mg 4 mg 1-2 mg 1 mg Increase by 1-2 mg after 1-2 wks</td>
<td>1-4 mg/day 8 mg/day</td>
</tr>
<tr>
<td>Glyburide ER</td>
<td>1.25 mg / 2.5 mg / 5 mg 2.5-5 mg / day Increase by 2.5-5 mg after 1-2 wks</td>
<td>1.25-10 mg/day 10 mg/day</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drug Class: Biguanides</th>
<th>Actions: Targets hepatic cells; decreases hepatic glucose production; does not stimulate insulin secretion; lowers fasting plasma glucose</th>
<th>Indications: Type 2 diabetes as monotherapy or in combination with any other agent or insulin; overweight; dyslipidemic; children (approved for ≥ age 10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metformin</td>
<td>500 mg / 850 mg / 1000 mg 500 mg BID Increase by 500 mg after 1-2 wks</td>
<td>1000-2000 mg/day 2500 mg/day</td>
</tr>
<tr>
<td>Metformin ER</td>
<td>500 mg / 750 mg 500 mg Use with caution, especially if &gt; 80 years</td>
<td>500-2000 mg/day 2000 mg/day</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drug Class: TZD (Thiazolidinediones)</th>
<th>Actions: Regulates insulin responsive genes necessary for glucose and lipid metabolism; improves sensitivity to insulin in skeletal and adipose tissue</th>
<th>Indications: Type 2 diabetes as monotherapy or in combination with any other agents; Actos is also approved for use with insulin</th>
</tr>
</thead>
<tbody>
<tr>
<td>pioglitazone (Actos)</td>
<td>15 mg 30 mg 45 mg 15-30 mg Increase by 15 mg 6-12 wks</td>
<td>Increase by 15 mg 6-12 wks 45 mg/day (30 mg if on insulin) 1-1.5%</td>
</tr>
<tr>
<td>pioglitazone (Actos)</td>
<td></td>
<td>Periodically</td>
</tr>
<tr>
<td>pioglitazone (Actos)</td>
<td></td>
<td>LFTs prior to initiation then yearly</td>
</tr>
<tr>
<td>pioglitazone (Actos)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Rosiglitazone is not listed on this chart due to restricted use by FDA. For more information, see: [http://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/ucm226976.htm](http://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/ucm226976.htm)
### DIABETES MELLITUS MEDICATIONS 2012

#### ORAL GLUCOSE-LOWERING AGENTS

<table>
<thead>
<tr>
<th>RX</th>
<th>Avail</th>
<th>Initial Dose</th>
<th>Initial Dose (elderly)</th>
<th>Dose Adjustment Schedule</th>
<th>Usual Maint. Dose</th>
<th>Max. Effective Dose</th>
<th>A1C Lowering</th>
<th>Wt</th>
<th>Renal Dosing</th>
<th>Hepatic Dosing</th>
<th>Lab Monitoring</th>
<th>Common Side Effects</th>
<th>Contraindications/ Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>repaglinide (Prandin)</td>
<td>0.5 mg</td>
<td>1 mg</td>
<td>2 mg</td>
<td>A1C &lt; 8%; 0.5 mg w/ each meal A1c=8:1-2 mg w/each meal</td>
<td>Same (caution if Renal Dz)</td>
<td>Double after 1-2 wks</td>
<td>0.5-4 mg before meals</td>
<td>16 mg/day</td>
<td>1-1.5%</td>
<td>CrCl &lt; 40 ml/min,</td>
<td>Use Caution</td>
<td>N/A</td>
<td>• hypoglycemia</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>• repaglinide: no active metabolites, minimal renal excretion, more effective than nateglinide in clinical trials</td>
</tr>
<tr>
<td>nateglinide (Starlix)</td>
<td>60 mg</td>
<td>120 mg</td>
<td>60-120 mg before meals</td>
<td>Same (caution if Liver Dz)</td>
<td>Increase by 60mg at each meal after 1-2 wks</td>
<td>60-120 mg before meals</td>
<td>120 mg TID</td>
<td>0.5-1%</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td>• weight gain</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>acarbose (Precose)</td>
<td>25 mg</td>
<td>50 mg</td>
<td>100 mg</td>
<td>25 mg TID with meals</td>
<td>Same</td>
<td>Double current dosing regimen after 4-8 wks</td>
<td>25-100 mg TID with meals</td>
<td>Wt. &lt; 60 kg = 50 mg TID Wt. &gt; 60 kg = 100 mg TID</td>
<td>0.5-1%</td>
<td>0</td>
<td>Treatment not recommended if SO2 &gt; 2</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>miglitol (Glyset)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>• flatulence</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>sitagliptin (Januvia)</td>
<td>25 mg</td>
<td>50 mg</td>
<td>100 mg</td>
<td>100 mg daily</td>
<td>Same</td>
<td>If making adjustments, wait 4-6 wks</td>
<td>100 mg daily</td>
<td>100 mg daily</td>
<td>0.6-0.8%</td>
<td>0</td>
<td>CrCl 30-50 ml/min: 50 mg daily</td>
<td>N/A</td>
<td>BUN, Cr prior to initiation then yearly</td>
</tr>
<tr>
<td>saxagliptin (Onglyza)</td>
<td>2.5 mg</td>
<td>5 mg</td>
<td></td>
<td>2.5 or 5 mg daily (2.5 mg for renal impairment of if given with a CYP3A4/5 Inhibitor)</td>
<td>Same</td>
<td>N/A</td>
<td>5 mg daily</td>
<td>5 mg daily</td>
<td>0.5-0.8%</td>
<td>0</td>
<td>CrCl &lt; 50 ml/min: 2.5 mg daily</td>
<td>N/A</td>
<td>BUN, Cr prior to initiation and then yearly</td>
</tr>
<tr>
<td>linagliptin (Tradjenta)</td>
<td>5 mg</td>
<td></td>
<td></td>
<td>5 mg daily without food</td>
<td>Same</td>
<td>N/A</td>
<td>5 mg daily</td>
<td>5 mg daily</td>
<td>0.4%</td>
<td>0</td>
<td>No adjustment needed</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*Based on expert opinion.*
### INJECTABLE NON-INSULIN GLUCOSE-LOWERING AGENTS

<table>
<thead>
<tr>
<th>RX</th>
<th>Initial Dose</th>
<th>Dose Adjustment Schedule</th>
<th>Max. Dose</th>
<th>Meal Timing</th>
<th>A1C Lowering</th>
<th>Wt</th>
<th>Renal Dosing</th>
<th>Hepatic Dosing</th>
<th>Lab Monitoring</th>
<th>Stability</th>
<th>Common Side Effects</th>
<th>Contraindications/Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>exenatide (Byetta)</td>
<td>5 mcg per dose, 60 doses, 1.2 mL prefilled pen</td>
<td>10 mcg BID any time within the 60-minute period before the 2 main meals of the day approximately 6 hours or more apart</td>
<td>Type 2 DM: 5 mcg BID at any time during the 60-minute period before the 2 main meals of the day, approximately 6 hours or more apart</td>
<td>10 mcg twice a day</td>
<td>Within 60 minute period before morning and evening meals</td>
<td>Type 2 DM: May be increased to 10 mcg BID after one month of therapy</td>
<td>1%</td>
<td>Do not use if CrCl &lt; 30 ml/min</td>
<td>N/A</td>
<td>Monitor INR for patients on warfarin</td>
<td>Store unused pen in refrigerator. After first use, may be kept at room temp (up to 77° F) for up to 30 days.</td>
<td>• nausea • other GI disturbance</td>
</tr>
<tr>
<td>exenatide extended-release (Bydureon)</td>
<td>2 mg single dose trays</td>
<td>2 mg every 7 days</td>
<td>None</td>
<td>2 mg/ week</td>
<td>Independent of meals</td>
<td>1.60%</td>
<td>Do not use if CrCl &lt; 30 ml/min Use with caution if 30 - 50 CrCl</td>
<td>N/A</td>
<td>Monitor INR for patients on warfarin</td>
<td>Administer immediately after suspension</td>
<td>• nausea, other GI disturbance</td>
<td>Injection site nodules</td>
</tr>
<tr>
<td>liraglutide (Victoza)</td>
<td>0.6 mg/mL, 3 mL prefilled syringes</td>
<td>Type 2 DM: 0.6 mg subcutaneously once a day for 1 week</td>
<td>Type 2 DM: Titrate to 1.2 mcg after 1 week then may increase to 1.8 mcg if 1.2 mcg reveals no significant changes</td>
<td>1.8 mg one time daily</td>
<td>Independent of meals</td>
<td>1-1.5%</td>
<td>No dosage adjustment necessary. Caution w/ renal impairment</td>
<td>N/A</td>
<td>No dosage adjustment necessary. Caution w/ hepatic impairment</td>
<td>N/A</td>
<td>Store unused pen in refrigerator. After first use, may be kept in refrigerator or room temp (up to 86° F) for up to 30 days. Keep pen cap on.</td>
<td>• nausea, other GI disturbance</td>
</tr>
<tr>
<td>pramlintide (Symlin)</td>
<td>0.6 mg/mL, 5 mL vials</td>
<td>Type 1 DM: 15 mcg immediately prior to major meals Type 2 DM: 60 mcg immediately prior to major meals</td>
<td>Type 1 DM: Titrate at 15 mcg increments to a maintenance dose of 30 or 60 mcg, as tolerated Type 2 DM: Increase to a dose of 120 mcg as tolerated</td>
<td>120 mcg before major meals</td>
<td>Immediately before meals containing ≥ 250 kcal or ≥ 30 grams of carbohydrate</td>
<td>0.4 – 0.6%</td>
<td>0/-</td>
<td>N/A</td>
<td>N/A</td>
<td>Discard 28 days after first use. Open bottles may be refrigerated or kept at room temp.</td>
<td>• nausea</td>
<td>• Avoid combination with GLP-1 agonist</td>
</tr>
</tbody>
</table>

Drug Class: GLP-1 agonist

Actions: stimulates the pancreas to increase insulin production and suppress glucagon secretion. Secondary actions include inhibition of gastric emptying and reduction of appetite and food intake.

Indications: Type 2 diabetes as monotherapy or in combination with sulfonylureas, metformin, or TZDs.

Note: A specialist should prescribe Symlin due to the complexity of dosing guidelines.

* May be given at any time of day independent of meals
* Reduce prandial, rapid-acting or short-acting, insulin dosages, including fixed-mix insulins by 50%
* Dose titrations should occur only when no clinically significant nausea has been seen for 3 days
## INSULIN® THERAPY 2012

<table>
<thead>
<tr>
<th>CLASS</th>
<th>INSULIN TYPE</th>
<th>BRAND</th>
<th>FORMULATIONS</th>
<th>ONSET of Action</th>
<th>PEAK</th>
<th>DURATION of Action</th>
<th>BASAL/ BOLUS</th>
<th>MEAL TIMING</th>
<th>APPEARANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rapid Acting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lispro</td>
<td>Humalog®</td>
<td>Vials, cartridges, pens</td>
<td>5-15 min</td>
<td>1-2 hours</td>
<td>2-4 hours</td>
<td>Bolus</td>
<td>15 min before or immediately after</td>
<td>Clear</td>
</tr>
<tr>
<td></td>
<td>Aspart</td>
<td>Novolog Vials</td>
<td>Vials, cartridges, pens</td>
<td>5-15 min</td>
<td>1-2 hours</td>
<td>2-4 hours</td>
<td>Bolus</td>
<td>5-10 min before</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Glulisine</td>
<td>Apidra</td>
<td>Vials, pen</td>
<td>5-15 min</td>
<td>1-2 hours</td>
<td>2-4 hours</td>
<td>Bolus</td>
<td>Within 15 min before or within 20 min after starting a meal</td>
<td>Clear</td>
</tr>
<tr>
<td>Short Acting</td>
<td>Regular</td>
<td>Humulin R</td>
<td>Vials</td>
<td>30-60 min</td>
<td>2-4 hours</td>
<td>4-6 hours</td>
<td>Bolus</td>
<td>30 min before meals</td>
<td>Clear</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Novolin R</td>
<td>Vials</td>
<td>30-60 min</td>
<td>2-4 hours</td>
<td>4-6 hours</td>
<td>Bolus</td>
<td></td>
<td>Clear</td>
</tr>
<tr>
<td>Intermediate Acting</td>
<td>NPH</td>
<td>Humulin N</td>
<td>Vials, cartridges</td>
<td>1-2 hours</td>
<td>4-8 hours</td>
<td>10-20 hours</td>
<td>Basal</td>
<td>Within 15 min before meals when mixed with rapid-acting insulin; 30 min before meals when mixed with regular insulin</td>
<td>Cloudy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Novolin N</td>
<td>Vials</td>
<td>1-2 hours</td>
<td>4-8 hours</td>
<td>10-20 hours</td>
<td>Basal</td>
<td></td>
<td>Clear</td>
</tr>
<tr>
<td>Long Acting</td>
<td></td>
<td>Lantus</td>
<td>Vials, pens</td>
<td>1-2 hours *</td>
<td>Flat</td>
<td>~24 hours</td>
<td>Basal</td>
<td>N/A</td>
<td>Clear</td>
</tr>
<tr>
<td></td>
<td>Detemir</td>
<td>Levemir</td>
<td>Vials, pen</td>
<td>1-2 hours</td>
<td>6-8 hours</td>
<td>Dose-dependent #</td>
<td>Basal</td>
<td></td>
<td>Clear</td>
</tr>
<tr>
<td>Combination</td>
<td>70 NPH/30 Regular</td>
<td>Humulin 70/30</td>
<td>Vials, pens</td>
<td>30-60 min</td>
<td></td>
<td>10-16 hours</td>
<td>Approximately 30 min before meals</td>
<td>Cloudy</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Novolin 70/30</td>
<td>Vials</td>
<td>30-60 min</td>
<td></td>
<td>10-16 hours</td>
<td>Approximately 30 min before meals</td>
<td>Cloudy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>70 aspart protamine/30 insulin aspart</td>
<td>Novolog Mix 70/30</td>
<td>Vials, carbohydrates, pens</td>
<td>10-20 min</td>
<td></td>
<td></td>
<td>Within 15 min of meal</td>
<td>Cloudy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>75 lispro protamine/25 lispro</td>
<td>Humalog Mix 75/25</td>
<td>Vials, pens</td>
<td>Less than 30 min</td>
<td></td>
<td>15-18 hours</td>
<td></td>
<td></td>
<td>Cloudy</td>
</tr>
<tr>
<td>High Strength U-500 Insulin</td>
<td>Regular</td>
<td>Humulin RU-500</td>
<td>Vials</td>
<td>30 min</td>
<td>2-4 hours</td>
<td>6.5-8 hours</td>
<td>Basal/ Bolus</td>
<td>Varies #</td>
<td>Clear</td>
</tr>
</tbody>
</table>

* The time course of action (onset of action, peak, duration of action) of any insulin may vary in different individuals or at different times in the same individual and can sometimes be dependent on dose. Time periods indicated should be considered a general guide only. Time may vary based on initial and subsequent doses. Consult with insulin package insert for additional information.

# U-500 is a high-strength concentration of insulin (5-fold higher concentration than U-100 insulin) and typically used in people with very high insulin resistance; consultation with a diabetes specialist is recommended. See Section 4: Glycemic Control for more information related to U-500 use and precautions.

* Some people may have a peak at 10-14 hours and the duration may be <24 hours.

*# Dose response studies indicate an approximate duration of action of 6-12 hours for Detemir dose of <0.4 units/kg and duration of action of 20-24 hours for Detemir dose of ≥0.4 units/kg.

* A 4-5 hour onset of action with initial dosing may occur based on expert opinion.

# Some people may benefit from a BID dose schedule.

# Available in Humulin®/ReliOn® insulin manufactured for Walmart by Eli Lilly
INSULIN PEARLS

Rapid-Acting Analogues: Lispro, Aspart and Glulisine

- Convenient administration immediately prior to or after meals
- Fast onset of action
- Limits post-prandial hyperglycemic peaks especially when taken 15-20 minutes prior to meal
- Risk of hypoglycemia if meal delayed >20 minutes after administration
- Short duration of activity (reduces late post-prandial hypoglycemia, but may cause frequent late post-prandial hyperglycemia)

Short-Acting Insulin: Regular

- Slower onset of action; requires administration 20-40 minutes prior to meal; risk of hypoglycemia if meal further delayed
- Possible mismatch with post-prandial hyperglycemic peak (less mismatch if gastroparesis present)
- Long duration of activity; potential for late post-prandial hyperglycemia
- May work better in people with high insulin requirements
- Can be an increase in hypoglycemia risk compared to rapid acting analogue insulin
- Less expensive than rapid acting analogue insulin

Intermediate-Acting Insulins: NPH and Detemir

NPH

- Significant variability in absorption within the same individual and injection site
- Has definite peak that can cause excessive hypoglycemia, especially at night
- Can be an increase in hypoglycemia risk compared to long-acting analogue insulin
- Requires at least two injections if using as basal insulin
- Consider using for people on prednisone, as the action profile matches the prednisone effect well
- Less expensive than long-acting analogue insulin

Detemir

- Duration of action of 6-12 hours for Detemir dose of < 0.4 units/kilogram and duration of action of 20-24 hours for Detemir dose of ≥ 0.4 units/kilogram
- May be dosed 1-2 times per day based on duration of activity
- At lower doses detemir may act more like NPH and at higher doses more like glargine
- Cannot mix with other insulins

Long-Acting Basal Insulins: Glargine and Detemir

Glargine

- Once-daily dosing for most people is adequate
- Some people may have a peak at 10-14 hours and the duration may be < 24 hours, thus to optimize glucose control two injections may be needed
- Less nocturnal hypoglycemia compared to NPH
- Cannot mix with other insulins

Detemir

- Duration of action of 6-12 hours for Detemir dose of < 0.4 units/kilogram and duration of action of 20-24 hours for Detemir dose of ≥ 0.4 units/kilogram
- May be dosed 1-2 times per day based on duration of activity
- At lower doses detemir may act more like NPH and at higher doses more like glargine
- Cannot mix with other insulins

Combinations/Pre-Mixed

- See information for rapid-acting analogues, short-acting insulin and intermediate-acting insulin
- Pre-mixed or combinations are used when less complicated regimens are needed

Disclaimer: “Insulin Pearls” provides a collection of expert opinion from health care providers, thus may or may not be evidence-based.
THE BASAL INSULIN/BOLUS INSULIN CONCEPT

Basal Insulin
- Suppresses glucose production between meals and overnight
- 50% of daily needs which is given by one or two injections per day or per insulin pump

Bolus Insulin (Meal Time or Post-prandial)
- Limits hyperglycemia after meals
- Immediate rise and sharp peak at 1 hour
- 10-20% of total daily insulin requirement at each meal

INSULIN REGIMENS

Regimen Considerations:
- Depends on individual characteristics (e.g., daily schedule, timing of meals, physical activity, age, and medication adherence)
- Willingness to monitor and take multiple injections
- Current pattern of high and low blood glucoses
- History of hypoglycemia unawareness

<table>
<thead>
<tr>
<th>Common Insulin Regimens</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intensive Insulin Regimens</strong></td>
</tr>
<tr>
<td>- Combines a basal insulin with injections of rapid-acting insulin before each meal</td>
</tr>
<tr>
<td>- Typically 3-4 injections/day</td>
</tr>
<tr>
<td>- More flexible with regard to timing of meals, content of meals, and activity</td>
</tr>
<tr>
<td>- Allows for frequent adjustments/corrections</td>
</tr>
<tr>
<td>- Requires frequent monitoring of glucose</td>
</tr>
<tr>
<td>- Can get the best A1C with less hypoglycemia compared to conventional regimens</td>
</tr>
</tbody>
</table>

Initiating Insulin Type 2 Diabetes: Examples of Various Options to Consider
- 10 units NPH or 0.1 to 0.15 units/kg at bedtime
- 10 units glargine or 0.1 to 0.15 units/kg once (morning or bedtime)
- 10 units detemir or 0.1 to 0.15 units/kg once daily (morning or at bedtime)
- 10 units of premixed insulin once a day (pre-breakfast or pre-dinner)
- 10 units premixed insulin twice daily (pre-breakfast and pre-dinner)
Diabetes Sick Days Plan

**GREEN ZONE**

- Blood glucose within goal range of 80 to 140 mg/dl
- Taking usual pills and/or insulin
- Eating and drinking normally
- No fever
- Diabetes is under control
- Test blood glucose 4 times a day while sick
- Continue to take your diabetes medication
- Keep on hand: fluids with sugar (such as apple juice), fluids with salt (such as broth)

**YELLOW ZONE**

- Glucose tests greater than 140 mg/dl more than once in 6 hours
- Symptoms of high blood glucose are present: thirst, dry mouth, blurred vision, frequent urination
- Nausea, vomiting or diarrhea interfere with eating and drinking
- Fever
- Glucose tests lower than 70 mg/dl more than once in 6 hours
- Test blood glucose at least every 4 hours and record results
- Continue to take your diabetes pills and/or insulin
- Drink at least 4 oz (1/4 cup) of fluids every 30 minutes
- Fluids should be sugar-free unless blood glucose is low or you are replacing a meal with the liquids. Treat low glucose with 15 gm of carbohydrate (see other side) and retest in 15 minutes; repeat treatment every 15 minutes until glucose is between 80–140 mg/dl

**RED ZONE**

- Glucose remains above 300 mg/dl for more than 6 hours or below 70 mg/dl after repeated treatment
- Vomiting and diarrhea for more than 6 hours
- You are dehydrated; very dry mouth, can’t urinate after 4 hours, rapid weight loss since becoming ill
- Confusion, sleepiness, seizures
- Call your doctor

- Information to have ready:
  - Blood glucose test results
  - Symptoms you have had, including fever, nausea, diarrhea and vomiting
  - Medication you have taken, including times and doses of insulin
  - What you have had to eat and drink

Adapted from Dean Health System
Soft foods may be an option during illness. They are usually easy to eat and require little preparation. Below is a sample menu to consider during periods of illness.

**BREAKFAST**
- 1 cup of skim milk
- ½ cup of cooked cream of wheat and 1 slice of toast
- ½ cup of fruit canned in juice or fruit juice

**LUNCH**
- 2 oz. American cheese
- 1 cup of tomato juice
- 6 saltine crackers and ¼ cup of sherbet
- ½ cup of fruit juice

**DINNER**
- 1 cup of cottage cheese or tuna
- 1 cup of vegetable juice
- 1 English muffin or 1 cup of mashed potatoes
- ½ cup of fruit canned in juice or fruit juice

**BEDTIME SNACK**
- ½ cup of sugar-free pudding
- ¼ cup of cottage cheese or 1 oz. of American cheese
- ½ cup of fruit canned in juice or fruit juice

If your blood glucose is in the normal range (80-140 mg/dL) and you cannot tolerate soft foods, try sipping clear liquids. The following items are examples of clear liquids containing 15 grams of carbohydrates.

<table>
<thead>
<tr>
<th>CLEAR LIQUIDS</th>
<th>SERVING/ CARBOHYDRATE AMOUNT</th>
<th>CLEAR LIQUIDS</th>
<th>SERVING/ CARBOHYDRATE AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple Juice</td>
<td>½ – ½ cup/15 grams</td>
<td>Gatorade</td>
<td>1 cup/15 grams</td>
</tr>
<tr>
<td>Cranberry Juice</td>
<td>½ – ½ cup/15 grams</td>
<td>Pedialyte</td>
<td>2 ½ cups/15 grams</td>
</tr>
<tr>
<td>Regular Soda</td>
<td>½ cup/15 grams</td>
<td>Soup (broth based)</td>
<td>1 cup/15 grams</td>
</tr>
<tr>
<td>Regular Jell-O</td>
<td>½ cup/15 grams</td>
<td>Popsicles</td>
<td>1 Popsicle/15 grams</td>
</tr>
</tbody>
</table>

Adapted from Dean Health System
Hypoglycemia

Low Blood Glucose
Know the Symptoms

An individual may not always recognize symptoms of low blood glucose. These common symptoms, and others, may indicate low blood glucose.

- Hungry
- Shaky/weak/clammy
- Blurred vision/glassy eyes
- Dizzy/headache
- Sweaty/flushed/hot
- Tired/drowsy
- Mood/behavior change
- Inattentive/spacey
- Slurred/garbled speech

If individual is confused/unable to follow commands, unable to swallow, unable to awaken (unconscious), or is having a seizure or convulsion, GIVE GLUCAGON

Adapted from: Children’s Diabetes Foundation at Denver
HYPERGLYCEMIA

HIGH BLOOD GLUCOSE

KNOW THE SYMPTOMS

An individual may not always recognize symptoms of high blood glucose. These common symptoms, and others, may indicate high blood glucose.

- Frequent urination (bedwetting in children)
- Extreme thirst/dry mouth
- Sweet, fruity breath
- Tiredness/fatigue
- Increased hunger
- Blurred vision
- Nausea/vomiting
- Stomach pain/cramps
- Unusual weight loss

If individual has labored breathing, weakness, is confused or unconscious, SEEK MEDICAL ASSISTANCE

Available at: http://www.ctri.wisc.edu/HC.Providers/healthcare_FDA_Meds.htm.
Medication | Cautions | Side Effects | Dosage | Use | Availability |
--- | --- | --- | --- | --- | --- |
**Bupropion SR 150** | Not for use if you: • Currently use a monoamine oxidase (MAO) inhibitor • Use bupropion in any other form • Have a history of seizures • Have a history of eating disorders | • Insomnia • Dry mouth | • Days 1-3: 150 mg each morning • Day 4-end: 150 mg twice daily | Start 1-2 weeks before your quit date; use 2 to 6 months | Prescription Only: • Generic • Zyban: Wellbutrin SR |
**Nicotine Gum** (2 mg or 4 mg) | • Caution with dentures • Don’t eat or drink 15 minutes before or during use | • Mouth soreness • Stomach ache | • 1 piece every 1 to 2 hours • 6-15 pieces per day • 2 mg: If smoking 24 cigarettes or less per day • 4 mg: If smoking 25+ cigs | Up to 12 weeks or as needed | OTC Only: • Generic: Nicorette |
**Nicotine Inhaler** | • May irritate mouth/throat at first (but improves with use) • Don’t eat or drink 15 minutes before or during use | • Local irritation of mouth and throat | • 6-16 cartridges/day • Inhale 80 times/carrigade • May save partially-used cartridge for next day | Up to 6 months; taper at end | Prescription Only: Nicotrol inhaler |
**Nicotine Lozenge** (2 mg or 4 mg) | • Do not eat or drink 15 minutes before or during use • One lozenge at a time • Limit 20 in 24 hours | • Hiccups • Cough • Heartburn | • 2 mg: If you don’t smoke 30 minutes or more after waking • 4 mg: If you smoke within 30 minutes of waking • Wks 1-6: 1 every 1-2 hrs • Wks 7-9: 1 every 2-4 hrs • Wks 10-12: 1 every 4-8 hrs | 3-6 months | OTC Only: • Generic: Commit |
**Nicotine Nasal Spray** | • Not for patients with asthma • May irritate nose (improves over time) • May cause dependence | • Nasal irritation | • 1 “dose” = 1 squirt per nostril • 1 to 2 doses per hour • 6 to 40 doses per day • Do NOT inhale | 3-6 months; taper at end | Prescription Only: Nicotrol NS |
**Nicotine Patch** | Do not use if you have severe eczema or psoriasis | • Local skin reaction • Insomnia | • One patch per day • If > 10 cigs/day: 1 mg 4 wks; 14 mg 2-4 wks; 7 mg 2-4 wks | 8-12 weeks | OTC: • Generic • Nicoderm CQ • Nicotrol Prescription: • Generic |
**Varenicline** | Use with caution in patients: • With significant renal impairment • With serious psychiatric illness • Undergoing dialysis FDA Warning: Varenicline patients have reported depressed mood, agitation, changes in behavior, suicidal ideation and suicide. | • Nausea • Insomnia • Abnormal, vivid or strange dreams | • Days 1-3: 0.5 mg every morning • Days 4-7: 0.5 mg twice daily • Day 8-end: 1 mg twice daily | Start 1 week before quit date; use 3-6 months | Prescription only: Chantix |

Combinations
1. Patch+bupropion
2. Patch+gum
3. Patch+lozenge
OR inhaler
- Only patch + bupropion is currently FDA-approved
- Follow instructions for individual medications
- See individual medications above
- See individual medications above
- See above
- See above

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Tools

Wisconsin Diabetes Mellitus Essential Care Guidelines • 2012

50
QUIET TOBACCO SERIES

PLAN TO QUIT

Quitting takes hard work, but you can do it! The plan below can help.

Get Ready.
List your reasons for quitting and tell your friends and family about your plan. See your doctor to find out if medication is right for you. Think of whom to reach out to when you need help, like a support group or the Wisconsin Tobacco Quit Line, it’s free and available at 1-800-QUIT-NOW (800-784-8669). The Quit Line can help you create a plan that’s tailored to your needs. Stop buying tobacco. Set a quit date. My quit date is: __________.

Purchase Medication.
Ask your doctor if quit-smoking medication is right for you. If so, buy either over-the-counter nicotine patches, lozenges or gum—or get a prescription from your doctor for the nicotine inhaler, patch, nasal spray, or one of the non-nicotine pills: Bupropion SR 150 (Zyban) or varenicline (Chantix). Note that patients should start taking bupropion SR 150 one to two weeks prior to the quit date. Patients should begin varenicline a week prior to quitting. Medication(s) I will use: __________

Change Your Routine.
Think of routines you may want to change. For example, take walks or work out when you normally smoke or chew. Pay attention to when and why you smoke or chew. Clean your clothes to get rid of the smell of cigarette smoke. Think of new ways to relax or things to hold in your hand instead of a cigarette or chew. List things to do instead of smoking/chewing:

Plan For More Money.
Make a list of the things you could do with the extra money you will save by not buying tobacco. Things I will do with the money:

Plan Your Rewards.
Think of rewards you will get yourself after you quit. Make an appointment with your dentist to have your teeth cleaned. At the end of the day, throw away all tobacco, matches or tins. Put away or toss lighters and ashtrays. My reward for quitting tobacco will be:

Quit Day
Keep very busy. Change your routine when possible, and do things that don’t remind you of smoking/chewing. Remind family, friends, and coworkers that this is your quit day, and ask them to help and support you. Avoid alcohol. Call the Quit Line for ongoing support at 1-800-QUIT-NOW. Buy yourself a treat, or do something to celebrate. You can do it!

Day After You Quit: Congratulations!
Congratulate yourself. When cravings hit, do something else that isn’t connected with smoking/chewing, like taking a walk, drinking a glass of water or taking deep breaths. Call your support network or the Quit Line. Eat snacks or chew gum.
WHAT HAPPENS WHEN YOU QUIT

Quitting improves your appearance:
☑️ Healthier skin.
☑️ Fresher breath.
☑️ Whiter, healthier teeth.

Other benefits:
☑️ Your clothes and hair smell better.
☑️ Your senses of taste and smell improve.
☑️ Work and exercise without losing your breath.
☑️ You’ll have more money.

REAP THE BENEFITS – FAST.

Everyone knows your health improves when you quit smoking/chewing. But you might be surprised at how fast it happens.

20 minutes after quitting: Your blood pressure drops to a level close to that before the last cigarette. The temperature of your hands and feet increases to normal.

12 hours after quitting: The carbon monoxide level in your blood begins to drop to normal.

24 hours after quitting: Your chance of a heart attack decreases.

2 weeks to 3 months after quitting: Your circulation and lung function improve.

1 to 9 months after quitting: Coughing, sinus congestion, fatigue and shortness of breath decrease; cilia (tiny hair-like structures that move mucus out of the lungs) regain normal function in the lungs, increasing the ability to clean the lungs and reduce infection.

1 year after quitting: The excess risk of coronary heart disease is half that of a tobacco user.

5-15 years after quitting: Your stroke risk is reduced to that of a nonsmoker.

10 years after quitting: The lung cancer death rate is about half that of a continuing tobacco user. The risk of cancer of the mouth, throat, esophagus, bladder, kidney and pancreas decrease.

15 years after quitting: The risk of coronary heart disease falls to that of a nonsmoker’s.

Sources: U.S. Surgeon General’s Reports

www.ctri.wisc.edu
Produced by the University of Wisconsin Center for Tobacco Research & Intervention
June 2008
SCREENING AND INITIAL RECOMMENDATIONS FOR DIABETIC KIDNEY DISEASE PATHWAY (Microalbuminuria, Macroalbuminuria and eGFR)

<table>
<thead>
<tr>
<th>TYPE 1: At puberty or after 5 years duration, then annually OR TYPE 2: At diagnosis, then annually</th>
</tr>
</thead>
</table>

### Test

**Serum Creatinine to measure estimated GFR**
- Estimate glomerular filtration rate (eGFR) using the MDRD equation online calculator at: [http://www.kidney.org/professionals/kdoqi/gfr_calculator.cfm](http://www.kidney.org/professionals/kdoqi/gfr_calculator.cfm)
- Evaluate and stage chronic kidney disease (Table 6-2)
- Repeat annually or as needed

### Test

**Albumin/Creatinine Ratio from a random urine sample**

<table>
<thead>
<tr>
<th>Negative (&lt; 30 mg/g)</th>
<th>Positive (≥ 30 mg/g)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Follow-up</strong></td>
<td><strong>Diagnose diabetic kidney disease:</strong></td>
</tr>
<tr>
<td>• Repeat albumin/creatinine ratio annually</td>
<td>• Microalbuminuria (30 to 300 mg/g)</td>
</tr>
<tr>
<td>• Optimize glycemic control (target A1C &lt; 7.0%)</td>
<td>• Macroalbuminuria (&gt; 300 mg/g)</td>
</tr>
<tr>
<td>• Optimize blood pressure control (target &lt; 130/80 mmHg)</td>
<td><strong>Recommend</strong></td>
</tr>
<tr>
<td></td>
<td>• Initiate ACE inhibitor or ARB therapy</td>
</tr>
<tr>
<td></td>
<td>• Even if blood pressure is normal</td>
</tr>
<tr>
<td></td>
<td>• Maximize dose as tolerated</td>
</tr>
<tr>
<td></td>
<td>• Optimize glycemic control (target A1C &lt; 7.0%)</td>
</tr>
<tr>
<td></td>
<td>• Optimize blood pressure control (target &lt; 130/80 mmHg)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Follow-up - Microalbuminuria (30 to 300 mg/g)</th>
<th>Follow-up - Macroalbuminuria (&gt; 300 mg/g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Repeat albumin/creatinine ratio every 3 months to monitor response to therapy</td>
<td>• Repeat protein/creatinine ratio every 3 months to monitor response to therapy</td>
</tr>
<tr>
<td>• When stable, repeat annually</td>
<td>• When stable, repeat annually</td>
</tr>
</tbody>
</table>

※If blood pressure is ≥130/80 mmHg, see KDOQI Guidelines on Hypertension [http://www.kidney.org/professionals/kdoqi/guidelines.cfm](http://www.kidney.org/professionals/kdoqi/guidelines.cfm)
CHRONIC KIDNEY DISEASE DVD ORDER FORM

Wisconsin Lions Foundation, Inc.

EDUCATIONAL DVD ORDER FORM
The Links to Chronic Kidney Disease:
Diabetes, High Blood Pressure, and Family History

Date of Request: ________________________  Number of DVDs Requested: ________________
Person Making Request: ________________________________________________________________
Address: _____________________________________________________________________________
City: ____________________________   State: ____________   Zip Code: ____________________
Phone: (_____) ___________________     Email: _________________________________________

The partners who developed this educational DVD thank you for helping to prevent chronic kidney
disease through the education of people at risk.

Your opinions about the DVD are important. Please provide your comments about this DVD to the Wisconsin
Lions Foundation. If commenting via email, please use diabetes@wlf.info.

A voluntary $10 donation to the Wisconsin Lions Foundation is welcome and appreciated. If you are making a
voluntary donation, please make the check payable to:
Wisconsin Lions Foundation Diabetes Education Fund.

Send this order form (and check if making a donation) to:

Liz Shelley  Email: lshelley@wlf.info
Wisconsin Lions Foundation, Inc.  Fax: (715) 677-4527
3834 County Road A  Phone: (877) 463-6953 (toll free)
Rosholt, WI  54473
DILATED RETINAL EYE EXAM COMMUNICATION FORM

This form is to document dilated eye exam results. Place form directly in the person’s medical record.
I, ______________________________ give consent to release this medical information.

Step #1: Patient

Patient: Fill out your name, date of birth, phone number, and the names of your Primary Care Clinician and Eye Care Specialist. After your yearly dilated eye exam, please make sure that this form or a copy of this form is returned to your Primary Care Clinician.

<table>
<thead>
<tr>
<th>Name</th>
<th>Date of Birth</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Last A1c</th>
<th>Date</th>
<th>BP</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Step #2: Eye Care Specialist

Eye Care Specialist: Please complete the information below and return this form or a copy of this form to the patient’s Primary Care Clinician listed above.

Eye Exam Date: ________________ Were eyes dilated for this exam?  □ Yes  □ No

Dear Primary Care Clinician: I have performed an eye exam on your patient. A brief report is provided below.

Retinal Examination Findings:                               Follow-up Eye Exam Recommendations:
□ No diabetic retinopathy                              □ 3 Months
□ Diabetic retinopathy requiring no treatment            □ 6 Months
□ Diabetic retinopathy requiring treatment               □ 1 Year
□ Other eye disease                                     □ Other: ____________________
□ Report sent to patient’s Primary Care Clinician

Eye Care Specialist’s Signature____________________________

Step #3: Primary Care Clinician

Primary Care Clinician: Please place this Dilated Retinal Eye Exam Information Form in the patient’s medical record.
EYE DVD ORDER FORM

How many DVD(s) would you like to order (indicate number in space) . . .

____ Protect Your Vision: the Dilated Eye Exam
____ Diabetic Retinopathy: A Potential Consequence of Uncontrolled Diabetes

Requesting Company/Organization Information

Contact Name: ____________________________ Date of Request: ________________
Company/Organization Requesting: ____________________________________________
Contact Email: __________________________ Contact Phone: (____) ____________
Shipping Address: ____________________________________________________________
City: __________________ State: ____ Zip: ____________________________

Share with us how you plan to use the DVD (check all that apply) . . .

☐ Waiting Rooms ☐ Exam Rooms ☐ Support Groups ☐ Community Presentations
☐ Health Fairs ☐ Lunch and Learns ☐ Home Health Visits ☐ Professional Education
☐ Medical Library Resource

Other: _______________________________________________________________________

Help us evaluate . . .

Protect Your Vision: the Dilated Eye Exam

Overall Quality of DVD: ☐ Poor ☐ Average ☐ Above Average ☐ Excellent
Clarity of Information: ☐ Poor ☐ Average ☐ Above Average ☐ Excellent

Diabetic Retinopathy: A Potential Consequence of Uncontrolled Diabetes

Overall Quality of DVD: ☐ Poor ☐ Average ☐ Above Average ☐ Excellent
Clarity of Information: ☐ Poor ☐ Average ☐ Above Average ☐ Excellent

Contribute to the cause . . .

The cost for each DVD, including production, packaging, and shipping, is approximately $4. If your company/organization is able to offset even a portion of this cost, it would be greatly appreciated. This voluntary donation will be used in Lions’ future community diabetes education projects. If you would like to make a voluntary donation, please make check payable to: Wisconsin Lions Foundation Diabetes Education Fund.

Send this order form (and check if making a donation) to:

Wisconsin Lions Foundation
3834 County Road A
Rosholt, WI 54473

Email: wlf@wlf.info
Fax: (715) 677-4527
Phone: (877) 463-6953 (toll free)
DIABETIC FOOT ULCERATION

Significant History
- Duration of ulcer
- Previous ulceration
- Pain/sensation
- Vascular history

* Additional diagnostic procedures as indicated

General Foot Exam
- Vascular
- Neurologic
- Structural deformity
- Dermatologic

Vascular
- Palpate pedal pulses
- Noninvasive vascular studies

Diagnostic Imaging
- Plain radiographs
- Imaging studies
  - CT
  - MRI
  - Bone scan
  - Ultrasound

Ulcer Examination
- Classification
- Size, depth
- Location
- Deformity
- Extent of necrosis
- Probe to bone

General Foot Exam • Vascular • Neurologic • Structural deformity • Dermatologic Vascular • Palpate pedal pulses • Noninvasive vascular studies Diagnostic Imaging • Plain radiographs • Imaging studies – CT – MRI – Bone scan – Ultrasound Ulcer Examination • Classification • Size, depth • Location • Deformity • Extent of necrosis • Probe to bone

Peripheral Vascular Consultation

Presence of GANGRENE

PAD Infection
- Wound Infection
- Osteomyelitis

Proceed to Pathway #2
Tx PAD

Initial Ulcer Treatment

WOUND CARE
- Debridement
  - Sharp
  - Enzymatic
  - Hydrosurgery
  - Ultrasound
- Moisture balance/dressings
- Advanced wound management
  - Growth factors
  - Biengineered tissues
  - HBO
  - Negative pressure (NPWT)

OFF-LOADING
- Bed rest
- Surgical shoe/healing sandal
- Bracing
- Total contact casts
- Wheelchair
- Crutches

Proceed to Pathway #4

Surgical Management
- Debridement
  - Soft tissue
  - Bone
- Exostectomy
- Correct deformity
- Plastic surgery

Long-term Management of Healed Ulcer
- Patient education
- Frequent re-evaluation
- Protective shoes, etc., see below:
  - Bracing
  - Extra depth shoes
  - Custom moulded shoes
  - Multiple density insoles
  - Orthoses

WOUND HEALED

WOUND FAILS TO HEAL
- Re-evaluate vascularity
- Re-evaluate for infection/osteomyelitis
- Biopsy to assess for malignancy

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DIABETIC FOOT INFECTION

Significant History/Findings
- Trauma (injury), puncture wound, foreign body
- Ulceration or gangrene
- Swelling, drainage, odor
- Systemic signs: fever, chills, malaise
- Diabetes duration/control

NON-LIMB-THREATENING INFECTION
- ≤ 2 cm cellulitis
- Superficial ulcer
- Does NOT probe to bone
- Limited edema, inflammation
- No bone/joint involvement
- No systemic toxicity
- No significant ischemia

DIAGNOSTICS
- Oral temperature
- Deep wound culture from base of ulcer/wound tissue specimen if possible
- Diagnostic imaging
  - Radiographs
  - MRI, WBC or bone scan
- Vascular evaluation
- Serologic testing
  - CBC with differential
  - Blood culture
  - ESR, CRP
  - Blood glucose
  - Renal metabolic profile

LIMB-THREATENING INFECTION
- > 2 cm cellulitis
- Edema, pain, lymphangitis
- Drainage, odor
- Probe wound for extensions
- Systemic signs: hypotension, cardiac arrhythmia (systemic toxicity)
- Ischemic changes

Outpatient Management
TREATMENT
- Surgical debridement of callus & ALL necrotic tissue
- Wound care - See Pathway #3
- Empiric antibiotic coverage followed by culture directed antibiotics
- Close monitoring of progress
- Hospital admission if infection progresses or wound/foot deteriorates

CONSULTATIONS as Necessary
- Endocrinology
- Vascular surgery
- Podiatric surgery
- Infectious disease
- Nephrology
- Cardiology
- General surgery

Infection Resolves

Non-Infected Ulcer
Proceed to Pathway #3

Hospital Admission
TREATMENT
- Surgical debridement of ALL necrotic tissue
- Exploration & drainage of abscess
- Surgical resection of osteomyelitis
- Open wound management
- Empiric antibiotics modified by culture directed antibiotics
- Advanced wound management
  - Negative pressure (NPWT) see Pathway #3
- Repeated wound debridement PRN
- Revascularization, as needed
- Foot-sparing reconstructive procedures
- Definitive amputation, if necessary

Infection Resolves

Open Wound/Ulcer or Healed Foot
Proceed to Pathway #3

CONSULTATIONS as Necessary
- Endocrinology
- Vascular surgery
- Podiatric surgery
- Infectious disease
- Nephrology
- Cardiology
- General surgery

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**CHARCOT FOOT**

**Significant History**
- Onset of morphologic changes
  - Progressive/static
  - Erythema
  - Swelling
- Trauma: type, when, repetitive
- LOPS +/- pain
- Previous ulcer &/or Charcot
- Long-standing diabetes

**Significant Findings**

<table>
<thead>
<tr>
<th>Dermatologic</th>
<th>Musculoskeletal</th>
<th>Neurologic</th>
<th>Vascular</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erythema</td>
<td>Swelling</td>
<td>LOPS</td>
<td>Papable pedal pulses</td>
</tr>
<tr>
<td>Warmth</td>
<td>Deformity</td>
<td>Autonomic neuropathy</td>
<td>Swelling</td>
</tr>
<tr>
<td>Cellulitis</td>
<td>Joint dislocation</td>
<td>Motor neuropathy</td>
<td></td>
</tr>
<tr>
<td>Xerosis</td>
<td>Equinus</td>
<td>Absent DTRs</td>
<td></td>
</tr>
<tr>
<td>+/- Ulcer</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Diagnostic Imaging**
- Plain radiographs
- Imaging studies
  - CT
  - MRI
- Bone scan
- Bone density

**Radiograph Findings**
- Joints/bones involved
- Osteolysis
- Fractures
- Bone density
- Dislocation
- Soft tissue edema
- Vascular calcifications
- Deformity

* Additional diagnostic procedures as indicated

**Treatment of Acute Charcot**
- Restriction of weightbearing
  - Crutches
  - Wheelchair
- Immobilization with splint, cast or removable cast until hyperemia resolved
- Continue immobilization 4-6 months until quiescence (chronic Charcot)
- Pharmacologic
- Bone stimulation

**Treatment of Chronic Charcot**
- Bracing
- Extra depth shoes
- Custom molded shoes
- Multiple density insoles
- Orthoses

**FOOT UNSTABLE**
- Bracing
- Extra depth shoes
- Custom molded shoes
- Multiple density insoles
- Orthoses

**FOOT STABLE**
- Supportive measures
- Therapeutic footwear
- Patient education
- Periodic evaluation to prevent recurrence

**Diagnosis**

**FOOT STABLE**
- Supportive measures
- Therapeutic footwear
- Patient education
- Periodic evaluation to prevent recurrence

**FOOT UNSTABLE**
- Bracing
- Extra depth shoes
- Custom molded shoes
- Multiple density insoles
- Orthoses

**Foot remains UNSTABLE not responsive to offloading & immobilization**
- Consider surgical stabilization

**Remains unstable**
- Chronic ulceration
- Chronic osteomyelitis
- Consider amputation

**If ulcer recurs, treat appropriately, see Pathway #3**

**Once quiescent, treat as chronic**

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ANNUAL COMPREHENSIVE DIABETES FOOT EXAM FORM

Name: ___________________________ Date: ___________________________ ID#: ___________________________

I. Presence of Diabetes Complications
1. Check all that apply.
   - Peripheral Neuropathy
   - Nephropathy
   - Retinopathy
   - Peripheral Vascular Disease
   - Cardiovascular Disease
   - Amputation (Specify date, side, and level)

II. Current History
1. Is there pain in the calf muscles when walking that is relieved by rest? Y __ N __

Current ulcer or history of a foot ulcer? Y __ N __

For Sections II & III, fill in the blanks with "Y" or "N" or with an "R," "L," or "B" for positive findings on the right, left, or both feet.

III. Foot Exam
1. Skin, Hair, and Nail Condition
   - Is the skin thin, fragile, shiny and hairless? Y __ N __
   - Are the nails thick, too long, ingrown, or infected with fungal disease? Y __ N __

2. Any change in the foot since the last evaluation? Y __ N __
3. Any shoe problems? Y __ N __
4. Any blood or discharge on socks or hose? Y __ N __
5. Smoking history? Y __ N __
6. Most recent hemoglobin A1c result __% _______ date

Measure, draw in, and label the patient's skin condition, using the key and the foot diagram below.

C=Callus U=Ulcer Pu=Pre-Ulcer
Fe=Frusure M=Maceration R=Redness
S=Swelling W=Warmth D=Dryness

2. Note Musculoskeletal Deformities
   - Toe deformities
   - Bunions (Hallus Valgus)
   - Charcot foot
   - Foot drop
   - Prominent Metatarsal Heads

3. Pedal Pulses Fill in the blanks with a "P" or an "A" to indicate present or absent.
   - Posterior tibial Left____ Right____
   - Dorsalis pedis Left____ Right____

IV. Risk Categorization
Check appropriate box.

IV. Risk Categorization
Check appropriate box.

Low Risk Patient
- All of the following:
  - Intact protective sensation
  - Pedal pulses present
  - No deformity
  - No prior foot ulcer
  - No amputation

High Risk Patient
- One or more of the following:
  - Loss of protective sensation
  - Absent pedal pulses
  - Foot deformity
  - History of foot ulcer
  - Prior amputation

V. Footwear Assessment
   Indicate yes or no.

1. Does the patient wear appropriate shoes? Y __ N __
2. Does the patient need inserts? Y __ N __
3. Should corrective footwear be prescribed? Y __ N __

VI. Education
   Indicate yes or no.

1. Has the patient had prior foot care education? Y __ N __
2. Can the patient demonstrate appropriate foot care? Y __ N __
3. Does the patient need smoking cessation counseling? Y __ N __
4. Does the patient need education about HbA1c or other diabetes self-care? Y __ N __

VII. Management Plan
   Check all that apply.

1. Self-management education:
   - Provide patient education for preventive foot care. Date: _____________
   - Provide or refer for smoking cessation counseling. Date: _____________
   - Provide patient education about HbA1c or other aspect of self-care. Date: _____________

2. Diagnostic studies:
   - Vascular Laboratory
   - Hemoglobin A1c (at least twice per year)
   - Other: _____________

3. Footwear recommendations:
   - None
   - Athletic shoes
   - Custom shoes
   - Accommodative inserts
   - Depth shoes
   - Socks
   - Endocrinologist
   - Diabetics Educator
   - Vascular Surgeon
   - Podiatrist
   - Foot Surgeon
   - RN Foot Specialist
   - Rehab Specialist
   - Pedorthist
   - Other: _____________

4. Follow-up Care:
   - Schedule follow-up visit. Date: _____________

Provider Signature: ___________________________
DIABETIC FOOT SCREEN FOR LOSS OF PROTECTIVE SENSATION

Filament Application Instructions:
1) Show the filament to the patient and touch it to his/her hand or arm so that he/she knows it does not hurt.

2) Use the 10 gram filament to test sensation at the indicated sites on each foot as shown. Apply the filament along the perimeter of and NOT on an ulcer, callous, scar, or necrotic tissue.

3) Hold the filament perpendicular to the skin and use a smooth motion when testing. Use a 3 step sequence that includes (1) touch the skin, (2) bend the filament, and (3) lift from the skin (See Figures 1-3). Do not use rapid movement. The approach, skin contact, and departure of the filament should be approximately 1½ seconds duration.

4) Ask the patient to respond “yes” when the filament is felt. If the patient does not respond when you touch a given point on the foot, continue on to another site. When you have completed the sequence, REPEAT the area(s) where the patient did not indicate feeling the filament.

5) Use the filament in a random sequence.

6) On the form, indicate with a minus sign, “—”, the areas where the patient did not respond to the filament. LOSS OF PROTECTIVE SENSATION AT ANY ONE OF THE EIGHT SITES INDICATES A FOOT AT HIGH RISK.

7) If you wish to clean the filament, use sodium hypochlorite (household bleach) 1:10 solution or follow the infection control disinfecting guidelines in your facility.
SHOES and SOCKS

take ‘em off!

IF YOU HAVE DIABETES
Have your doctor check your feet.
MEDIAS y ZAPATOS

¡Sáquese los!

SI TIENE DIABETES
Pídale a su médico que le vea los pies.
### MEDICAL-DENTAL: TEAM REFERRAL FORM

**Client Name:** ___________________________  **Date of Birth:** ___________________________

#### Medical Provider: Complete this section

1. Type of diabetes:  
   - [ ] Type 1 diabetes  
   - [ ] Type 2 diabetes  
   - [ ] Other  
   Year diagnosed: ___________________________

2. List medication(s)/insulin: ___________________________

3. Result and date of most recent:  
   - A1C: ________________ %  
   - Date: ___________________________

4. Result and date of most recent blood pressure: ___________________________
   History of cardiovascular disease:  
   - [ ] Yes  
   - [ ] No

5. Antibiotic pre-medication required?  
   - [ ] Yes  
   - [ ] No  
   Drug allergies: ___________________________

6. Inspection of gums and teeth:  
   - [ ] Loose, sensitive teeth, and/or separated teeth  
   - [ ] Accumulation of food debris and/or plaque around teeth  
   - [ ] History of abscess  
   - [ ] Red, sore, swollen, receding or bleeding gums  
   - [ ] Halitosis  
   - [ ] Missing teeth  
   - [ ] Other ___________________________

7. Medical provider:  
   - Address: ___________________________
   - City/State: ___________________________
   - Telephone: ___________________________  
   - FAX: ___________________________

#### Dental Provider: Complete this section

1. Date of dental visit: ___________________________  
   Next dental appointment or F/U: ___________________________

2. Periodontal status (check):  
   - [ ] Gingivitis  
   - [ ] Early Periodontitis  
   - [ ] Moderate Periodontitis  
   - [ ] Advanced Periodontitis

3. Dental oral exam findings: ___________________________

4. Treatment provided: ___________________________

5. Dental office recommendations:  
   - [ ] F/U with healthcare provider  
   - [ ] Other ___________________________

6. Dental provider:  
   - Address: ___________________________
   - City/State: ___________________________
   - Telephone: ___________________________  
   - FAX: ___________________________

---

I, ___________________________, consent to the release and exchange of medical/dental information pertinent to my diabetes management and overall healthcare.

**PLEASE FAX THIS FORM TO THE Referring DENTAL OR MEDICAL PROVIDER.**
DIABETES: SCREENING TOOL FOR INSPECTION OF GUMS AND TEETH

Visual inspection of a person's gums and teeth for early signs of periodontal disease at diagnosis, and then at each focused visit can assist with early detection and treatment. The accompanying diagrams may be helpful for understanding the evaluation criteria and the presence of periodontal disease.

Periodontitis is a chronic infectious disease that causes loss of both supporting bone and can lead to tooth loss.

Assign a score based on current findings. Refer to a dentist for further evaluation if score is 4 or more.

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 6 months since last dental visit</td>
<td>4</td>
</tr>
<tr>
<td>Red, sore, swollen, or bleeding gums</td>
<td>4</td>
</tr>
<tr>
<td>Loose, sensitive teeth, and/or separated teeth</td>
<td>4</td>
</tr>
<tr>
<td>Visible debris or accumulation of hardened material around teeth</td>
<td>3</td>
</tr>
<tr>
<td>Exposed roots in the mouth</td>
<td>2</td>
</tr>
<tr>
<td>Strong odor in the mouth</td>
<td>1</td>
</tr>
<tr>
<td>Smoking or smokeless tobacco use</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL SCORE</strong></td>
<td></td>
</tr>
</tbody>
</table>
**PATIENT HEALTH QUESTIONNAIRE (PHQ-9)**

**NAME:** ___________________________________  **DATE:** ____________________

Over the last two weeks, how often have you been bothered by any of the following problems? *(use "✓" to indicate your answer)*

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Several days</th>
<th>More than half the days</th>
<th>Nearly every day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Little interest or pleasure in doing things</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. Feeling down, depressed, or hopeless</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. Trouble falling or staying asleep, or sleeping too much</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. Feeling tired or having little energy</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. Poor appetite or overeating</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. Feeling bad about yourself – or that you are a failure or have let yourself or your family down</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. Trouble concentrating on things, such as reading the newspaper or watching television</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. Moving or speaking so slowly that other people could have noticed. Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. Thoughts that you would be better off dead, or of hurting yourself in some way</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL:**

**10. If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?**

<table>
<thead>
<tr>
<th>Not difficult at all</th>
<th>Somewhat difficult</th>
<th>Very difficult</th>
<th>Extremely difficult</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Provided as a service by Pfizer Neuroscience

PHQ-9 is adapted from PRIME MD TODAY, developed by Drs Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke, and colleagues, with an educational grant from Pfizer Inc. For research information, contact Dr Spitzer at rls@columbia.edu. The names PRIME-MD® and PRIME MD TODAY™ are trademarks of Pfizer Inc.
For initial diagnosis:

1. Person completes PHQ-9 Quick Depression Assessment.
2. If there are at least 4 ✓’s in the gray highlighted section (including Questions #1 and #2), consider a depressive disorder. Add score to determine severity.
3. Consider Major Depressive Disorder.
   ♦ if there are at least 5 ✓’s in the gray highlighted section (one of which corresponds to Question #1 or #2)
   Consider Other Depressive Disorder
   ♦ if there are 2-4 ✓’s in the gray highlighted section (one of which corresponds to Question #1 or #2)

Note: Since the questionnaire relies on individuals self-reporting, the clinician should verify all responses and make a definitive diagnosis on clinical grounds, taking into account how well the individual understood the questionnaire, as well as other relevant information from the individual. Diagnoses of Major Depressive Disorder or Other Depressive Disorder also require impairment of social, occupational, or other important areas of functioning (Question #10) and ruling out normal bereavement, a history of a Manic Episode (Bipolar Disorder), and a physical disorder, medication, or other drug as the biological cause of the depressive symptoms.

To monitor severity over time for newly diagnosed individuals or individuals in current treatment for depression:

1. Individual may complete questionnaires at baseline and at regular intervals (e.g., every 2 weeks) at home and bring them in at their next appointment for scoring or they may complete the questionnaire during each scheduled appointment.
2. Add up ✓’s by column. For every ✓: “Several days” = 1, “More than half the days” = 2, “Nearly every day” = 3.
3. Add together column scores to get a TOTAL score.
4. Refer to the accompanying PHQ-9 Scoring Card to interpret the TOTAL score.
5. Results may be included in individual’s file to assist you in setting up a treatment goal, determining degree of response, as well as guiding treatment intervention.

---

**PHQ-9 SCORING CARD FOR SEVERITY DETERMINATION**

for health care professional use only

**Scoring – add up all checked boxes on PHQ-9**

For every ✓: Not at all = 0; Several days = 1; More than half the days = 2; Nearly every day = 3

**Interpretation of Total Score**

<table>
<thead>
<tr>
<th>Total Score</th>
<th>Depression Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 4</td>
<td>Minimal depression</td>
</tr>
<tr>
<td>5 – 9</td>
<td>Mild depression</td>
</tr>
<tr>
<td>10 – 14</td>
<td>Moderate depression</td>
</tr>
<tr>
<td>15 – 19</td>
<td>Moderately severe depression</td>
</tr>
<tr>
<td>20 – 27</td>
<td>Severe depression</td>
</tr>
</tbody>
</table>
It’s never too early... to Prevent Diabetes

If you had gestational diabetes when you were pregnant, you and your child have a lifelong risk for getting diabetes.

Because of this risk, you need to be tested for diabetes after your baby is born, then every one to two years. Reduce your risk by taking small steps for you and your family. If you weigh too much, you can prevent or delay type 2 diabetes if you lose a small amount of weight and become more active.

Your children can lower their risk for type 2 diabetes if they don’t become overweight. Serve them healthy foods and help them to be more active.

What is Gestational (jes-TAY-shon-al) Diabetes?
It is a type of diabetes that occurs when women are pregnant. Having it raises their risk for getting diabetes, mostly type 2, for the rest of their lives. African American, Hispanic/Latina, American Indian, and Alaska Native women have the highest risk.

A Lifetime of Small Steps for A Healthy Family

National Diabetes Education Program www.ndep.nih.gov
They grow up in the blink of an eye.

Don't miss a minute.

Don't let gestational diabetes become type 2 diabetes.

If you've had gestational diabetes, you’re more than seven times as likely to develop type 2 diabetes as women who did not have diabetes during pregnancy. But you can lower your risk.

Be sure to tell your health care providers that you have had gestational diabetes. Working with your doctor, healthy eating, and exercising can help prevent type 2 diabetes. Follow these steps so you can enjoy a healthy, active life with your baby.

For more information, visit CheckUpAmerica.org/GDM, or call 1-800-DIABETES.
**ASSESSING RISK AND TESTING FOR TYPE 2 DIABETES PATHWAY**

Test all persons ≥ age 45

Consider testing any adult with BMI ≥ 25 kg/m² and/or one or more risk factors listed below:
- Physical inactivity
- A1C ≥ 5.7%, history of impaired glucose tolerance (IGT), or impaired fasting glucose (IFG)
- Race/ethnicity (Hispanic/Latino, African American, Native American, Asian American, or Pacific Islander)
- Family history (first-degree relative with diabetes)
- History of hypertension (> 140/90 mmHg) or on therapy for hypertension
- History of cardiovascular disease
- History of dyslipidemia: HDL < 35 mg/dL and/or triglycerides ≥ 250 mg/dL
- Markers of insulin resistance: (e.g., Acanthosis nigricans and/or waist circumference > 40 inches in men and > 35 inches in women *)
- Women with Polycystic Ovary Syndrome (PCOS)
- History of Gestational Diabetes Mellitus (GDM) in women or delivery of a baby weighing more than 9 pounds at birth *
- Schizophrenia and/or severe bipolar disease, or long-term antipsychotic therapy

* Waist circumference > 35 inches in Asian men and > 31 inches in Asian women
* Very high risk of developing type 2 diabetes

Check Fasting Plasma Glucose (FPG), Oral Glucose Tolerance Test (OGTT), or A1C

Use code 790.29 (pre-diabetes not otherwise specified)

**People ≥ 45 years old and with any risk factors for type 2 Diabetes benefit from:**
- Assessment, education, and support for lifestyle change:
  - Weight reduction (goal of > 7% of body weight or more)
  - Aerobic activity (goal of 150 min/wk or more)
- Strategies to assist with behavior change
- Positive support and guidance
- Annual screening test to assure early detection

**Results Normal; No Pre-Diabetes Detected**

Retest in 3 years if:
- ≥ 45 years old
- Prior normal FPG
- No risk factors

Retest in 1 year if:
- One or more risk factors
- History of GDM
- History of PCOS

**Confirm/Repeat Test (prefer using the same test)**

**Dx Pre-Diabetes**

Use code 790.21 (IFG) or 790.22 (IGT)

Refer for or provide:
- Assessment, education and support lifestyle changes
- Assess Cardiovascular Disease (CVD) risk (see section 5)
- Consider Metformin in very high risk individuals
- Follow-up annually

**Dx Type 2 Diabetes**

Refer for:
- Self-Management Education and Medical Nutrition Therapy
- Start metformin
- Assess Cardiovascular Disease (CVD) risk (see section 5)
- Implement WI Essential Diabetes Care Guidelines

**Consider**

Repeat test in 3-6 months
Especially for those with:
- One prior abnormal FPG
- History of GDM
- Women with PCOS
- Multiple risk factors

**FPG, OGTT, A1C**

- FPG < 100 mg/dL OGTT < 140 mg/dL A1C < 5.7%
- FPG 100-125 mg/dL OGTT 140-199 mg/dL A1C 5.7-6.4%
- FPG ≥ 126 mg/dL OGTT > 200 mg/dL A1C ≥ 6.5%
Are You At Risk?

Diabetes Risk Test

Calculate Your Chances for Type 2 or Pre-Diabetes

The American Diabetes Association has revised its Diabetes Risk Test according to a new, more accurate statistical model. The updated test includes some new risk factors, and projects risk for pre-diabetes as well as diabetes.

This simple tool can help you determine your risk for having pre-diabetes or diabetes. Using the flow chart, answer the questions until you reach a colored shape. Match that with a risk message shown below.

Low Risk: Right now your risk for having pre-diabetes or diabetes is low. But your risk goes up as you get older. Talk to your doctor about how to keep your risk low.

At Risk for Pre-Diabetes: You are at higher risk for pre-diabetes which means your blood glucose is higher than normal but not high enough to be diagnosed as diabetes. Talk to your doctor about ways to reduce your risk for diabetes.

High Risk: You are at higher risk for having type 2 diabetes. However, only your doctor can tell for sure if you do have type 2 diabetes. Talk to your doctor to see if additional testing is needed.

*Your risk for diabetes or pre-diabetes depends on additional risk factors including weight, physical activity and blood pressure.
**50+ Tips to Prevent Type 2 Diabetes**

**Reduce Portion Sizes**

#1 **Less on Your Plate, Nate.**
Keep meat, poultry and fish portions to about 3 ounces (about the size of a deck of cards).

#2 **Try not to snack while cooking or cleaning the kitchen.**

#3 **Try to eat meals and snacks at regular times every day.**

#4 **Make sure you eat breakfast everyday.**
Use broth and cured meats (smoked turkey and turkey bacon) in small amounts. They are high in sodium. Low sodium broths are available in cans and in powdered form.

#5 **Share a single dessert.**

#6 **When eating out, have a big vegetable salad, then split an entree with a friend or have the other half wrapped to go.**

#7 **Stir fry, broil, or bake with non-stick spray or low-sodium broth and cook with less oil and butter.**

#10 **Drink a glass of water 10 minutes before your meal to take the edge off your hunger.**

#11 **Make healthy choices at fast food restaurants. Try grilled chicken (remove skin) instead of a cheeseburger. Skip the french fries and choose a salad.**

#12 **Listen to music while you eat instead of watching TV (people tend to eat more while watching TV).**

#13 **Eat slowly. It takes 20 minutes for your stomach to send a signal to your brain that you're full.**

#14 **Eat a small meal, Lucille.**

#15 **Teaspoons, salad forks, or child-size utensils may help you take smaller bites and eat less.**

#16 **You don't have to cut out the foods you love to eat. Just cut down on your portion size and eat it less often.**

#17 **Make less food look like more by serving your meal on a salad or breakfast plate.**

**Move More Each Day**

#18 **Dance It Away, Faye.**
Show your kids the dances you used to do when you were their age.

#19 **Turn up the music and jam while doing household chores.**

#20 **Deliver a message in person to a co-worker instead of e-mailing.**

#21 **Take the stairs to your office. Or take the stairs as far as you can, and then take the elevator the rest of the way.**

#22 **Make fewer phone calls. Catch up with friends on a regular basis during a planned walk.**

#23 **March in place while you watch TV.**

#24 **Park as far away as possible from your favorite store at the mall.**

#25 **Select a physical activity video from the store or library.**

#26 **Get off of the bus one stop early and walk the rest of the way home or to work several times a week.**
Make Healthy Food Choices

#28 Snack On a Veggie, Reggie

#29 Try getting one new fruit or vegetable every time you grocery shop.

#30 Low-fat macaroni and cheese can be a main dish. Serve it with your favorite vegetable and a salad.

#31 Try eating foods from other countries. Many dishes contain more vegetables, whole grains and beans and less meat.

#32 Cook with a mix of spices instead of salt.

#33 Find a water bottle you really like (from a church or club event, favorite sports team, etc.) and drink water from it wherever and whenever you can.

#34 Always keep a healthy snack with you, such as fresh fruit, handful of nuts, whole grain crackers.

#35 Choose veggie toppings like spinach, broccoli, and peppers for your pizza.

#36 Try different recipes for baking or broiling meat, chicken and fish.

#37 Try to choose foods with little or no added sugar.

#38 Gradually work your way down from whole milk to 2% milk until you’re drinking and cooking with fat-free (skim) or low-fat milk and milk products.

#39 Eat foods made from whole-grains—such as whole wheat, brown rice, oats, and whole-grain corn—every day. Use whole-grain bread for toast and sandwiches; substitute brown rice for white rice for home-cooked meals and when dining out.

#40 Don’t grocery shop on an empty stomach. Make a list before you go to the store.

#41 Read food labels. Choose foods low in saturated fats, trans fats, cholesterol, salt (sodium), and added sugars.

#42 Fruits are colorful and make a welcome centerpiece for any table. Enjoy the company of family and friends while sharing a bowl of fruit.

#43 Slow down at snack time. Eating a bag of low-fat popcorn takes longer than eating a slice of cake. Peel and eat an orange instead of drinking orange juice.

#44 Try keeping a written record of what you eat for a week. It can help you see when you tend to overeat or eat foods high in fat or calories.

Nurture Your Mind, Body and Soul

#45 You Can Exhale, Gail.

#46 Don’t try to change your entire way of eating and increasing your physical activity all at once. Try one new activity or food a week.

#47 Find mellow ways to relax—try deep breathing, take an easy paced walk, or enjoy your favorite easy listening music.

#48 Give yourself daily “pampering time.” Honor this time, whether it’s reading a book, taking a long bath, or meditating.

#49 Try not to eat out of boredom or frustration. If you are not hungry, do something else, such as taking a long walk.

Be Creative

#50 Honor your health as your most precious gift.

#51 Make up your own

#52

#53

#54

There are many more ways to prevent or delay diabetes by making healthy food choices and moving more. Discover your own and share them with your family, friends, and neighbors.