

State of Alaska: 2010 Recommendations for the Management of Diabetes Type 2 in Adults

Based on the American Diabetes Association 2010 Clinical Practice Recommendations
http://care.diabetesjournals.org/content/33/Supplement_1/S11.full

Additional copies of these AK Recommendations can be downloaded from
<http://www.hss.state.ak.us/dph/chronic/diabetes/>

Criteria for the Diagnosis of Diabetes Type 2 in Adults
1. A1C \geq 6.5%* or
2. Symptoms of diabetes (polyuria, polydipsia, unexplained weight loss) plus casual** plasma glucose concentration \geq 200 mg/dl or
3. FPG \geq 126 mg/dl or
4. 2-hour postload glucose \geq 200 mg/dl during an OGTT using a glucose load equivalent to 75 g anhydrous glucose dissolved in H ₂ O.
Note: In the absence of unequivocal hyperglycemia, these criteria should be confirmed by repeat testing, using same test, on a different day.
* A1C should be performed in a Lab using a method that is NGSP certified and standardized to the DCCT assay.
** Casual is defined as any time of day without regard to time of last meal.

Criteria for Screening Asymptomatic Adults
1. Testing should be considered for all adults \geq 45 years of age. If testing is normal, it should be repeated in 3-year intervals.
2. Testing should be considered at a younger age or be done more frequently in individuals with BMI \geq 25 kg/m ² and who have at least one additional risk factor: is not physically active; has a first degree relative with diabetes; is a member of a high-risk ethnic population (e.g., African American, Asian American, Hispanic/Latino, Native American, Pacific Islander); has delivered a baby $>$ 9 lb; has been diagnosed with GDM; is hypertensive; has an HDL-C level \leq 35 and/or a triglyceride level \geq 250; has polycystic ovary syndrome; has been diagnosed with IGT or IFG on previous testing; has a history of vascular disease; or has other clinical conditions associated with insulin resistance (e.g., dyslipidemia, PCOS or acanthosis nigricans).

Criteria for the Diagnosis of Pre-diabetes *		
Definitions	Values	Comments
A1C	5.7-6.4%	
	or	
IFG Impaired Fasting Glucose	100-125 mg/dl	Fasting is defined as no caloric intake for at least 8 hours.
	or	
IGT Impaired Glucose Tolerance	140-199 mg/dl (2-hour postload)	Test uses a glucose load equivalent to 75 g anhydrous glucose dissolved in H ₂ O.
Note: Patients with IGT, IFG, or an A1C of 5.7-6.4% should be advised to lose 5-10% of body weight and to increase physical activity to at least 150 min per week of moderate intensity activity; they should be screened annually for diabetes. Other CVD risk factors should also be identified and treated. MNT (medical nutrition therapy) and follow-up counseling are recommended.		
* Diagnosis is made on one abnormal value.		

Components of the Initial Comprehensive Evaluation of Adults with Diabetes Type 2	
History	Medical and family history; assessment of lifestyle, risk factors, activity level, cultural/psychosocial issues.
Physical Exam	Height, weight, BMI, fundoscopic, oral, thyroid palpation, cardiac, abdominal, pulses, extremities, skin, neurological; check sensation with 10 g microfilament.
Labs/Tests	A1C, fasting lipid profile, ALT, AST, lytes, BUN, creatinine, TSH (if indicated), UA, microalbuminuria/creatinine ratio, ECG.
Referrals	Ophthalmologist for eye exam, dietician/nutritionist, diabetes educator, foot specialist.

Components of Each Clinic Visit for Adults with Diabetes Type 2	
Test	Comments
BP	Monitor and adjust therapy to keep BP \leq 130/80.
Weight	Compare with previous weights.
BMI	Monitor trends.
Blood Glucose	Check A1C. Review log of patient's SBGM results. Adjust therapy to attain glycemic goals.
Foot Check	Inspect feet for lesions, ingrown nails, infection, pressure points, calluses, and etc.
Education	Make referrals as indicated.

Routine Health Maintenance for Adults with Diabetes Type 2	
Test/Exam	Frequency
Physical Exam	Yearly
Pap Smear/Pelvic Exam	Yearly or as per guidelines
Breast Exam	Yearly
Mammogram	In women 40-49, q 1-2 years; yearly for women \geq 50
Rectal Exam &/or PSA	In men \geq 50 for prostate evaluation
CRC Screening	For average risk, colonoscopy should begin at age 50 and then q 10 yrs. If at high risk for earlier onset CRC, screening should begin earlier and be done more frequently.

Yearly Exams and Tests for Adults with Diabetes Type 2	
Test	Comments
A1C	Twice yearly in patients who are meeting tx goals; quarterly in patients whose therapy has changed or who are not meeting tx goals; point-of-care (POC) testing allows for timely decisions on therapy changes; POC should not be used to diagnose.
Fasting Lipid Panel	Consider pharmacological tx if lifestyle and dietary modifications are ineffective in lowering LDL-C. Re-evaluate lipid profiles 6-12 weeks after new therapies are initiated.
Serum Creatinine	Measure to estimate GFR to assess presence of chronic kidney disease.
UA/ Microalbuminuria	Annual microalbumin/creatinine ratio. If elevated, confirm with second test. Can check more frequently to monitor therapy.
Dilated Eye Exam	Retinal exam either through dilated pupils or stereofundus photos. Consider less frequent exams of low-risk patients based on the advice of an eye care professional.
Dental Exam	Screen for periodontal disease and examine gums and oral cavity for lesions.
Foot Exam	Neurovascular foot exam w/ pulse check, ROM, and 10 g monofilament sensation in 7-9 areas per foot. Also check for ingrown nails, lesions, and any deformities.
Flu Vaccine	Vaccinate yearly.
Tetanus (Td)	Vaccinate every 10 years.
Pneumovac PPV23	Immunize at time of diagnosis if unvaccinated. If immunized prior to age 65, a one-time revaccination is warranted if $>$ 64 years of age and at least 5 years have elapsed since receiving the most recent dose.

Patient Education for Adults with Diabetes Type 2		
Topic	Content/Goals	Frequency
General Diabetes Education	Patients and their families should receive diabetes self-management information. This forms the basis for the plan of care and promotes mutually set goals and strategies.	Every visit
Smoking Cessation	Advise all patients not to smoke or use tobacco products. Refer to tobacco cessation program as indicated. Nicotine replacement therapy recommended.	Initial visit; ongoing as indicated
Physical Activity	Patients should engage in at least 150 min per week of moderate-intensity aerobic activity and unless there are contraindications, perform resistance training 3 x per week. Instruction should address recreational and leisure activities as well as patient's ability to adjust therapy and nutrition to facilitate safe participation. Before beginning a physical activity program, patient should be screened for macro-and micro-vascular complications.	Every visit
Nutrition	Plan should include assessment of patient's energy balance, lifestyle, cultural preferences, readiness to make changes, goal setting, dietary instruction, & evaluation. Dietary plan should: promote fiber and whole grains, limit saturated fat, minimize trans fat, and manage carbohydrate intake. Recommend that protein intake should be limited to the RDA (0.8 g/kg) in those pts. with any degree of chronic kidney disease.	Every visit; q 6-12 mos. w/RD
SMBG	Instruct patients in self-monitoring of blood glucose (SMBG); routinely review patient's technique and ability to use data to adjust therapy as indicated. SMBG should be done 3 or more times daily for patients using multiple insulin injections or an insulin pump. For other patients, SMBG may be a useful guide for monitoring.	Every visit
Self-Management DSME	Self-management training gives persons with diabetes the tools to be able to adjust their daily routines in order to improve glycemic control. The goal of DSME is for persons with diabetes to be able to evaluate the interrelationships between medical nutrition therapy, physical activity, emotional/physical stress, and medications, and then to respond appropriately to those factors to achieve and maintain optimal glucose control.	Ongoing

Therapeutic Goals for (non-pregnant) Adults with Diabetes Type 2	
Test	Goal Values
A1C	$<$ 7 %*
BP	$<$ 130/80 **
FBS	80-120 mg/dl
LDL-C	$<$ 100 mg/dl ***
HDL-C	$>$ 40 mg/dl (men) $>$ 50 mg/dl (women)
Triglycerides	$<$ 150 mg/dl
Total Cholesterol	$<$ 200 mg/dl****
FBS	80-120 mg/dl
2-hr. Postprandial	$<$ 160 mg/dl
Antiplatelet Therapy	ASA 75-162 mg/day
Note: Goals should account for individual patient circumstances.	
* A more stringent goal, i.e., $<$ 6%, should be considered for some patients.	
** The ADA recommendation for BP is $<$ 130/80, except for patients with renal dysfunction, in which the goal is 120/75.	
*** In patients with overt CVD, an LDL $<$ 70mg/dl is optimal.	
**** In patients over 40 years of age with a TC \geq 135 mg/dl, statin therapy to achieve an LDL reduction of 30%, regardless of baseline LDL levels, may be appropriate.	

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