

# **Diabetes and Smoking Risks/Smoking Cessation**

The evidence is compelling that the combination of smoking and diabetes markedly increases the risk for micro- and macrovascular disease and premature mortality. Emerging evidence suggests a relationship of smoking to future diabetes risk, and that smoking during pregnancy may lead to fetal beta cell damage with the consequent risk for obesity and diabetes. It is essential that clinicians recognize smoking as a serious risk related to diabetes. Fortunately, there are evidence-based smoking cessation methods that clinicians can use successfully with their patients.

#### The Issues:

- Smoking remains the most important modifiable risk factor for cardiovascular disease, cancer, and premature death and disability.
- Evidence is clear that this risk is much more severe in patients with diabetes.
- New evidence shows that nicotine damages beta cells of the pancreas and contributes to development of metabolic syndrome and diabetes.
- Evidence suggests that maternal smoking leads to fetal beta cell damage and future diabetes risk.
- \* The majority of smokers want and have tried to guit.
- A large proportion of pregnant women quit successfully in the prenatal period.
- \* There are proven effective interventions for quitting tobacco, including advice, counseling and pharmacotherapy. Cessation should be viewed as a long-term process involving nicotine dependence, withdrawal, and relapse. A combination of counseling and pharmacotherapy is more effective than either strategy alone.
- Proactive cessation counseling for patients is available through Nevada Tobacco Users' Helpline, 1-800-QUITNOW (1-800-784-8669).

## **Key Recommendations:**

- All clinicians especially those who manage patients at risk for or already living with diabetes should recognize the importance of intervening against smoking.
- \* Clinicians should repeatedly ask or develop office systems for asking about the smoking status of every youth or adult in their practice. This is particularly important for patients managed for metabolic syndrome, diabetes, and pregnancy.
- Clinicians should take every possible opportunity to advise smoking patients to quit using messages that are brief, clear, informative and personalized.
- Clinician efforts will be enhanced by gaining familiarity with brief intervention counseling techniques, "over the counter" and prescription pharmacotherapy, and individual and group cessation resources in their communities.
- Clinicians should become familiar with and regularly refer patients to the Nevada Tobacco Users' Helpline, 1-800-QUITNOW (1-800-784-8669).
- \* Clinicians should continue to actively support patients after initiating a quit attempt, whether successful or unsuccessful.
- 1 American Diabetes Association. Smoking and Diabetes. Diabetes Care Volume 27 Supplement 1. January 2004. www.diabetes.org
- 2 Borowitz JL, Isom GE. Toxicol Sci. 2008 Jun; 103(2): 225-7. Epub 2008 Mar 18.
- 3 Haire-Joshu D, Glasgow RE, Tibbs TL. Smoking and Diabetes. Diabetes Care, Volume 22, Number 11, November 1999 www.diabetes.org
- 4 Holloway AC, Lim GE, Petrick JJ, Foster WG, Morrison KM, Gerstein HC. Fetal and neonatal exposure to nicotine in Wistar rats results in increased beta cell apoptosis at birth and postnatal endocrine and metabolic changes associated with type 2 diabetes. Diabetologia (2005) 48: 2661-2666. Published online 4 November 2005. www.diabetologia-journal.org
- 5 New Mexico Clinical Prevention Initiative. Tobacco Use Prevention and Cessation Program. 3rd Edition. 2007. www.nmms.org/subpages/NMMS CPI.html1
- 6 U.S. Department of Health and Human Services. Clinical Practice Guideline: Treating Tobacco Use and Dependence. Washington, D.C. U.S. Government Printing Office. 2000. www.hhs.gov/
- 7 Willi C, Bodenmann P, Ghali WA, Faris PD, Cormuz J. Active Smoking and the Risk of Type 2 Diabetes. Journal of the American Medical Association December 12, 2007 Volume 298 Number 22 www.pub.ama-assn.org/

# **Resources for Clinicians**

The following resources are FREE and available to the public.

**Nevada Tobacco Users' Helpline**—Nevadans can get extra support to quit smoking- Free and confidential telephone-based tobacco cessation services are available at 1-800-QUIT NOW (1-800-784-8669). Callers are offered:

- Services in English and Spanish on Monday-Friday 10am-9pm
- Unlimited telephone counseling sessions with a licensed and trained quit counselor
- Assistance in developing treatment plan
- Educational classes and support groups
- \* Medication Assistance Program, if warranted, including all FDA approved first line medications
- Referrals to other local community cessation programs, where available

### **Websites—**The editorial committee has identified websites that you may find informative:

- American Cancer Society: www.cancer.org
- American Diabetes Association: www.diabetes.org
- American Heart Association Heart Failure Toolkit: americanheart.org/targethf
- ❖ American Heart Association Stroke Toolkit: americanheart.org/targetstroke
- ❖ American Heart Association Heart of Diabetes Program: www.iknowdiabetes.org/know.html
- American Lung Association (Freedom from Smoking): www.lungusa.org
- CDC Tobacco Information and Prevention Source: www.cdc.gov/tobacco
- National Diabetes Education Program: www.ndep.nih.gov
- National Institute of Health: www.diabetes.niddk.nih.gov
- Nevada State Health Division: www.health.nv.gov/CD Tobacco KickHabit.html
- Nevada Tobacco Users' Helpline: www.livingtobaccofree.com
- Southern Nevada Health District-Tobacco Control Section: www.gethealthyclarkcounty.org/tobacco/quit.html

Please see iDo Adult Diabetes Practice Guide at www.snmic.com/ido-improving-diabetes-obesity-outcomes/ for additional clinical management recommendations

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