

Diabetes Risk Higher for Former Heavy Smokers

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Older men and women who were once heavy smokers have a significantly higher risk of diabetes and obesity than do nonsmokers or current light smokers, according to Tommi Sulander of Finland's National Public Health Institute, Helsinki, and colleagues.

The investigators examined the associations between smoking status, diabetes, and

obesity using data from nationwide biennial surveys conducted in Finland from 1985 to 1995. The study population consisted of 7,482 individuals (3,738 men and 3,744 women) aged 65-79 years.

Survey data were collected by self-report using standardized questionnaires with items concerning weight, smoking status, illnesses, diet, alcohol consumption, and physical activity. Data were analyzed using logistic regression models (Arch. Gerontol. Geriatr. 2006 [Epub

doi:10.1016/j.archger.2006.10.007]).

Age was categorized by 5-year intervals. Light smoking was defined as 1-19 cigarettes a day, and heavy smoking was defined as 20 or more cigarettes a day. Smoking status was classified in five categories: nonsmoker, current light smoker, current heavy smoker, ex-light smoker, and ex-heavy smoker. Obesity was defined as a body mass index (kg/m²) of 30 or greater.

Relative to nonsmokers, ex-heavy smokers had higher risks of developing

both obesity and diabetes, whereas current light smokers had lower risks for both conditions. In a logistic regression model adjusting only for age and gender, relative obesity risks were 1.38 for ex-heavy smokers and 0.43 for current light smokers. Similarly, relative risks of diabetes were higher for ex-heavy smokers (1.36) and lower for current light smokers (0.51). Rates of obesity and rates of diabetes were comparable among nonsmokers, ex-light smokers, and current heavy smokers. ■

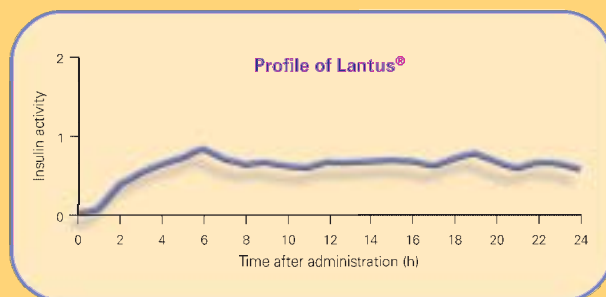
Lantus®: the #1-prescribed insulin for good reason

The #1 priority for people with diabetes-related hyperglycemia is to reduce blood glucose and A1C.¹

Over the past 5 years, physicians like you have turned to Lantus® in steadily increasing numbers to do just that.* Why? Because 5 years ago when you were wishing for a basal insulin that mimicked the way physiologic basal insulin works, Lantus® came along. It was then, and is still, the only once-daily, 24-hour basal insulin with no pronounced peak.² The result? Millions of prescriptions have been written for Lantus®.* Lantus®, along with diet, exercise, and prandial and/or oral agents, allows patients to benefit from a full 24 hours of glucose lowering. Studies have shown Lantus® is associated with a low rate of hypoglycemia and has a neutral effect on weight.²⁻⁴

Lantus® closely mimics physiologic basal insulin secretion.^{5,6}

Physiologic basal insulin is secreted continuously over 24 hours, at a rate of approximately 0.5 IU/h, to meet between-meal and overnight glucose-regulating requirements and to suppress excess hepatic glucose production.⁶ Past attempts at creating an insulin to mimic this profile have resulted in agents that have wide variability in their absorption and length of effect. Lantus® demonstrates a low rate of variability in its action, with a relatively flat, predictable profile after only 1 injection that lasts for a full 24 hours.^{2,7,8} Additionally, in a crossover study of healthy volunteers, no differences in absorption rates were observed whether Lantus® was injected into the leg, arm, or abdomen.^{2,9}



Physiologic basal profile means patients are better able to plan when to eat—because they don't have to contend with insulin peaks.⁶ That can help patients by not requiring them to eat or snack at a specific time to balance a peak. In fact, Lantus® is associated with a low rate of hypoglycemia. It also has a neutral effect on weight.

Lantus®, a basal insulin for patients with diabetes, has the features you want. It's what you've told us.

It's what you've *shown* us by making Lantus® the #1-prescribed insulin.

Lantus® is the only once-daily, 24-hour basal insulin with no pronounced peak, and it closely mimics physiologic basal insulin secretion.²

It's tried. It's trusted. And it's there for you as you help

more and more patients with diabetes toward control of blood glucose.

We thank you for letting Lantus® help.

Once-Daily
24-HOUR
LANTUS®
insulin glargine [rDNA origin] injection

Important Safety Information

Lantus® is indicated for once-daily subcutaneous administration, at the same time each day, for the treatment of adult and pediatric patients (6 years and older) with type 1 diabetes mellitus or adult patients with type 2 diabetes mellitus who require basal (long-acting) insulin for the control of hyperglycemia.

LANTUS® MUST NOT BE DILUTED OR MIXED WITH ANY OTHER INSULIN OR SOLUTION. If mixed or diluted, the solution may become cloudy, and the onset of action/time to peak effect may be altered in an unpredictable manner.

Lantus® is contraindicated in patients hypersensitive to insulin glargine or the excipients.

Hypoglycemia is the most common adverse effect of insulin, including Lantus®. As with all insulins, the timing of hypoglycemia may differ among various insulin formulations. Glucose monitoring is recommended for all patients with diabetes. Any change of insulin type and/or regimen should be made cautiously and only under medical supervision. Concomitant oral antidiabetes treatment may need to be adjusted.

Other adverse events commonly associated with Lantus® include the following: lipodystrophy, skin reactions (such as injection-site reaction, pruritus, rash), and allergic reactions.

Please see brief summary of prescribing information on adjacent page.

*Based on PNRx, IMS Health, National Prescription Audit Plus™, September 2003 – December 2005.

References: 1. American Diabetes Association. *Diabetes Care*. 2005;28(suppl 1):S4-S36. 2. Lantus Prescribing Information. 3. Data on file, sanofi-aventis U.S. LLC (CSR HOF901/5001). 4. Data on file, sanofi-aventis U.S. LLC (CSR HOF901/5024). 5. Nathan DM. *N Engl J Med*. 2002;347:1342-1349. 6. Guthrie R. *Clin Diabetes*. 2001;19:66-70. 7. Scholtz HE, Pretorius SG, Wessels DH, Becker RHA. *Diabetologia*. 2005;48:1988-1995. 8. Fanelli CG, Pampanelli F, Porcellati P, et al. Poster presented at: 38th Annual Meeting of the European Association for the Study of Diabetes (EASD); September 1-5, 2002; Budapest, Hungary. 9. McKeage K, Goa KL. *Drugs*. 2001;61:1599-1624.