

## Treatment of noninsulin-dependent diabetes with insulin

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Noninsulin-dependent diabetes is characterized by a raised and steady overnight basal plasma glucose concentration, which is "set" for each diabetic for a given state of nutrition and in normal health. The basal plasma glucose concentration correlates with plasma glucose concentrations through the rest of the day, and it provides a simple and easily understood criterion of control in mild diabetes. The basal plasma glucose concentration can be reduced to normal, with minimal risk of hypoglycemia, by daily injections of long-acting, ultralente insulin. The dosage of insulin required can be estimated from the fasting plasma glucose concentration and the degree of obesity.

A prospective randomized study has been instituted to determine the relative efficacy of ultralente insulin and sulfonylurea. The dosage of both are adjusted to aim for fasting plasma glucose concentrations of < 6 mmol/liter. They have been found to be equally effective, and both produce a median weight gain of 2 kg over one year, compared with no change on diet alone. Extension of such a study to long-term use could determine if either ultralente insulin or sulfonylurea therapy would be beneficial in reducing the complications of diabetes.