Maintenance of basal plasma glucose and insulin concentrations in maturity-onset diabetes.

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Normal and mildly diabetic subjects each have their own "set" of basal plasma glucose and insulin concentrations. Diabetic patients have raised basal plasma glucose, with low-normal basal plasma C-peptide concentrations. Restoring normal glucose levels in mild diabetes by an insulin infusion further reduces the C-peptide concentration, but both the plasma glucose and the C-peptide return to their "set" level when the insulin is withdrawn. These results accord with the action of beta cells and liver in a negative feedback loop that maintains basal plasma glucose and insulin concentrations.