Beta-cell function improved by supplementing basal insulin secretion in mild diabetes.

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Insulin supplements, predominantly as a constant basal fish insulin infusion, were given to patients with mild diabetes to reduce the overnight fasting glucose level to normal. The basal plasma human insulin levels were reduced to subnormal levels by the infusion, and the insulin response to intravenous glucose was enhanced. The beta-cell in diabetes seems to be in a vicious circle in which an impaired insulin response to glucose produces hyperglycaemia, which stresses beta-cell function, making it more inefficient. A constant basal insulin supplement to induce basal normoglycaemia may benefit beta-cell function in diabetes.