

What are GIP and GLP-1?

GIP: glucose-dependent insulinotropic polypeptide

GLP-1: glucagon-like peptide-1

GIP and GLP-1 are natural incretin hormones responsible for regulating blood sugar levels in response to eating food.¹ When food is consumed, GIP and GLP-1 are released from the intestines, and these increase insulin secretion from the pancreas. In people without type 2 diabetes, GIP has a greater effect on insulin release than GLP-1 does.²

Potential Actions of GIP and GLP-1*¹



PANCREAS

GIP Activity

Increases insulin
Increases glucagon

GLP-1 Activity

Increases insulin
Reduces glucagon



BRAIN

GLP-1 Activity

Reduces food intake

GIP Activity

May reduce food intake



SYSTEMIC EFFECTS

GIP AND GLP-1 Activity

Increases insulin sensitivity



STOMACH

GLP-1 Activity

Slows passing of food through the stomach

* Much of these data are derived from animal studies and more research is needed to better understand the effect of GIP and GLP-1 on the human body

1. Samms RJ, Coghlan MP, Sloop KW. How may GIP enhance the therapeutic efficacy of GLP-1? *Trends Endocrinol Metab.* 2020;31(6):410-421

2. Michael A. Nauck, Juris J. Meier; GIP and GLP-1: Stepsiblings Rather Than Monozygotic Twins Within the Incretin Family. *Diabetes.* 1 May 2019; 68 (5): 897-900.