



Sitagliptin in Type 2 Diabetes Mellitus and Cardiovascular Disease: A Public Health and Health Equity Perspective

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- Type 2 diabetes mellitus and cardiovascular disease are interrelated conditions that disproportionately affect underserved populations, with compounded risk in communities facing systemic barriers to care.
- This review synthesizes clinical trial evidence, preclinical research, and public health perspectives to evaluate sitagliptin's pharmacologic profile, safety, and potential vascular effects, particularly in resource-limited settings. Sitagliptin, the first oral DPP-4 inhibitor, demonstrates weight neutrality, minimal hypoglycemia risk, and renal dosing flexibility.
- Dependable, well-tolerated, accessible therapy that can simplify care for complex, multimorbid patients shifting sitagliptin from a second-line standby to a frontline option for underserved populations.
- Although its cardiovascular neutrality often viewed as a limitation can be a strength where safety and tolerability are paramount. Used alongside lifestyle change and comprehensive risk-factor control, sitagliptin supports individualized care without adding treatment burden. It has little to no effect on body weight, renal function, or lipid profiles.

Sitagliptin remains a practical option when GLP-1 receptor agonists or SGLT2 inhibitors are contraindicated, unaffordable, or not tolerated, owing to once-daily oral dosing, renal dose flexibility, and excellent tolerability.

