

# Cardiometabolic Risk Reduction Drugs: Integrating Diabetes and Cardiovascular Care

## Introduction

Cardiometabolic risk—including cardiovascular disease, dyslipidemia, hypertension, and insulin resistance—is a major concern in patients with type 2 diabetes. Traditional diabetes therapies primarily focus on glycemic control, but emerging pharmacologic agents now target both glucose regulation and cardiovascular health. Cardiometabolic risk reduction drugs aim to lower the incidence of major adverse cardiovascular events, improve metabolic profiles, and provide organ protection, making them a key component of modern, patient-centered diabetes care [1-5].

## Discussion

Several drug classes have demonstrated dual benefits for glycemic control and cardiometabolic risk reduction. Sodium-glucose cotransporter 2 (SGLT2) inhibitors, for example, reduce blood glucose by promoting urinary glucose excretion while lowering blood pressure, body weight, and cardiovascular event risk. Clinical trials have shown reductions in heart failure hospitalizations and progression of chronic kidney disease, making SGLT2 inhibitors particularly valuable in patients with diabetes and comorbid cardiovascular or renal disease.

Glucagon-like peptide-1 (GLP-1) receptor agonists offer additional cardiometabolic benefits. These agents enhance glucose-dependent insulin secretion, suppress glucagon, promote satiety, and contribute to weight loss. Large cardiovascular outcome trials have demonstrated that GLP-1 receptor agonists can reduce the risk of major cardiovascular events, particularly in patients with established atherosclerotic cardiovascular disease.

Other medications, while primarily targeting traditional cardiometabolic risk factors, complement these approaches. Statins and ezetimibe manage dyslipidemia, reducing atherosclerotic risk, while antihypertensive drugs such as ACE inhibitors and ARBs mitigate cardiovascular and renal complications. Combining these therapies with diabetes-specific agents addresses multiple risk pathways, providing a comprehensive strategy for reducing morbidity and mortality.

Patient selection and individualized therapy are essential. Cardiometabolic risk reduction drugs may be prioritized for patients with high cardiovascular risk, obesity, chronic kidney disease, or multiple metabolic comorbidities. Monitoring for side effects—including genitourinary infections with SGLT2 inhibitors or gastrointestinal intolerance with GLP-1 receptor agonists—is crucial to ensure safety and adherence.

## Conclusion

Cardiometabolic risk reduction drugs represent a paradigm shift in diabetes care, integrating glycemic management with cardiovascular and renal protection. SGLT2 inhibitors, GLP-1 receptor agonists, and adjunctive therapies provide effective strategies to reduce adverse events, improve metabolic outcomes, and enhance quality of life. Tailored, patient-centered approaches that incorporate these medications can significantly lower

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long-term cardiometabolic risk, ensuring comprehensive and proactive management for individuals living with diabetes.

### References

1. Beaufort IN, De Weert-Van Oene GH, Buwalda VA, de Leeuw JRJ, Goudriaan AE (2017) The depression, anxiety and stress scale (DASS-21) as screener for depression in substance use disorder inpatients: a pilot study. *Eur Addict Res* 23: 260-268
2. Johnson S (2018) Stomach Ulcers and What You Can Do About Them.
3. Valencia Higurea (2020) Peptic Ulcer and Its Causes.
4. Deding U, Ejlskov L, Grabas MPK, Nielsen BJ, Torp-Pedersen C (2016) Perceived stress as a risk factor for peptic ulcers: A register-based cohort study. *BMC Gastroenterology* 16: 140.
5. Levenstein S, Rosenstock S, Jacobsen RK, Jorgensen T (2015) Psychological Stress Increases Risk for Peptic Ulcer, Regardless of Helicobacter pylori Infection or Use of Nonsteroidal Anti-inflammatory Drugs. *Clin Gastroenterol Hepatol* 13: 498-506.