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Metformin increases urinary sodium excretion by reducing phosphorylation of the sodium-chloride cotransporter

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Abstract

Objective. Metformin is an antidiabetic drug that is widely used to treat patients with diabetes mellitus. Recent studies have reported that treatment with metformin not only improved blood glucose levels but also reduced blood pressure. However, it remains unclear how metformin reduces blood pressure. We hypothesized that metformin affects sodium reabsorption in the kidneys.

Methods. Urinary sodium excretion and expression of renal sodium transporters were examined