

# Venovenous hemodiafiltration improves metformin toxicity

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(HealthDay)—High-volume continuous venovenous hemodiafiltration

(CVVH) and resin-sorbent hemoperfusion is effective for eliminating metformin, according to a case study published online Oct. 5 in the *Journal of Diabetes Investigation*.

Shuangxin Liu, from Guangdong Academy of Medical Sciences in China, and colleagues described the case of a 42-year-old female who attempted suicide by taking 100 tablets of 500 mg metformin. Severe lactic acidosis was revealed in [laboratory tests](#), with lactate levels of 24 mmol/L and pH of 7.09.

The researchers noted that the patient was treated with high-volume CVVH and resin-sorbent hemoperfusion. During CVVH and hemoperfusion [treatment](#), metformin concentrations were assessed with high-performance liquid chromatography. Plasma metformin concentration was 208.5 mg/L before extracorporeal treatment and decreased to 13.9 mg/L after 24 hours of CVVH treatment. After three hours, resin-based sorbent hemoperfusion plus CVVH treatment had reduced [metformin](#) plasma concentration by 61.8 percent. The patient's laboratory tests and clinical syndrome were improved after seven days, and she was discharged.

"We provide evidence that CVVH plus hemoperfusion is effective in eliminating metformins and metabolic products," the authors write.

**More information:** [Abstract/Full Text \(subscription or payment may be required\)](#)

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