

Metformin Exhibits Cardioprotective Properties in Type 1 Diabetes.

Ahmed FW, et al. Cardiovasc Diabetol. 2016; 15(1): 116.

- Type 1 diabetes is associated with an increased risk of cardiovascular disease (CVD). Decreased endothelial progenitor cell (EPC) number plays a pivotal role in reduced endothelial repair and development of CVD.
- In a 8 week study, it was observed that the cardioprotective effect of metformin is mediated by increasing circulating endothelial progenitor cells (cEPCs), pro-angiogenic cells (PACs) and decreasing the circulating endothelial cell (cECs) count while maintaining unchanged glycemc control.
- Glucose variability (average glucose, blood glucose standard deviation, mean amplitude of glycaemic excursion, continuous overall net glycaemic action and area under curve) remained unchanged.

In Type 1 diabetes, metformin exhibits cardio-protective effects via improvement in cEPCs, cECs, and PAC count and function, independently of its hypoglycemic effect.