Objective
This study aims at determining the low blood flow limits required for arterio venous extra pulmonary CO₂ removal.

Study Design
Experimental study.

Study Population
5 adult Suffolk ewes.

Results
The study shows that hemodynamic variables during extrapulmonary CO₂ removal are stable. Blood flow and sweep gas flow were modified independently to determine the optimal extra corporeal blood flow. With 19% arterio venous shunt no significant change in hemodynamics was observed with CO₂ removal as high as 1417 ml/min. Even a reduction of blood flow to 500 ml/min did not result in hypercapnia.

Commentary
The authors describe arteriovenous CO₂ removal as a simple technique both in monitoring and maintenance. Mechanical ventilation needed to maintain hermocapnia could be reduced 16% of base line. This allows the lung to rest and gives time to heal.