



Peripheral Vascular Disease

Hindlimb Ischemia Model

Scope of application

- Chronic limb threatening ischemia is characterized by inadequate neovascularization. **The murine hindlimb ischemia model is frequently used for studying collateral (i.e. arteriogenesis) formation and angiogenesis.**

Models

After high ligation and division of the hindlimb femoral artery, angiogenesis occurs in the calf in response to tissue ischemia and arteriogenesis occurs in the thigh in response to altered intravascular pressure and shear stress. Revascularization is monitored by repetitive Laser Doppler perfusion imaging (LDPI) in vivo and determination of capillary density via immunohistology.

In combination with prior bone-marrow transplantation, this model can also be used to investigate the effect of endothelial progenitor cells (EPCs).