Arterial and venous vascular injuries are known but rare complications of severe multiple traumatised patients but are meanwhile more frequently induced iatrogenically. However there are only few reports about incidence, causes, surgical techniques and prognosis of these vascular emergencies. We have therefore analysed the causes, type of therapy, localisation of injury, primary disease, morbidity and mortality of all vascular emergencies in patients without preexisting vascular disease. 2.9 % of all vascular repairs in our unit had to be performed for cases of iatrogenic (87 %) and non-iatrogenic (13 %) vascular complications. The overall mortality and major complication rate of these intrahospital iatrogenically acquired lesions were 4.8 % and 5 %, respectively, which are clearly below those of extrahospital vascular injuries. Thereby the observed increase of iatrogenic vascular injuries seems to be due to the increase in complex and even catheter-based techniques in modern therapy. The iliacofemoral region was affected in 45 % of the cases, in 50 % complex reconstructions and specific surgical skills were needed for the repair. This article on the incidence of and reasons for vascular iatrogenic lesions shows the importance of a planned management for the prognosis of these injuries.