

ARTERIOVENOUS FISTULA

ARTERIOVENOUS FISTULA

Communication between an artery and a vein may be either a congenital malformation or the result of trauma. Arteriovenous fistulae for haemodialysis access are also created surgically. All arteriovenous communications have a structural and a physiological effect. The structural effect of arterial blood flow on the veins is characteristic; they become dilated, tortuous and thick walled (arterialised). The physiological effect, if the fistula is large, is an increase in cardiac output that may lead to cardiac failure. A pulsatile swelling may be present if the lesion is superficial. A thrill is detected on palpation and auscultation reveals a buzzing continuous bruit ('machinery murmur'). Dilated veins may be seen and pressure on the artery proximal to the fistula reduces the swelling and the thrill and bruit cease. Duplex scan and/or angiography confirms the lesion that shows rapid venous filling. Treatment is often complex and usually involves embolisation. Excision surgery is sometimes used for severe deformity or recurrent haemorrhage; the assistance of a plastic surgeon is wise. Ligation of a 'feeding' artery usually fails and may preclude treatment by embolisation.

Revision #1

Created 2025-12-31 15:23:02 UTC by Omar Ayman

Updated 2025-12-31 15:23:02 UTC by Omar Ayman