Aorta

The thoracic aorta runs down in front of the spine. In the thorax the thoracic aorta branches off to give many intercostal arteries. It passes through the diaphragm at T12 and becomes the abdominal aorta.

The abdominal aorta mainly supplies the gut, and there are 3 unpaired arteries that come off the anterior aspect of the aorta. There are also renal, gonadal and common iliac arteries.

The 3 unpaired arteries to the gut are the coeliac trunk (blood to foregut: pancreas, spleen, liver, stomach), the superior mesenteric artery (midgut: duodenum to transverse colon) and the inferior mesenteric artery (hindgut: descending colon, sigmoid colon, rectum).

The aorta splits into 2 common iliac arteries, which then again splits into an internal and external iliac artery. This second split occurs around L4/L5. The internal iliac arteries are closer to the pelvis ring and supply blood within the pelvis, to pelvic organs. The external arteries are further away and supply blood to the lower limb.

Lower limb

The external artery forms the femoral artery, and in the knee becomes the popliteal artery. Below the knee it forms the anterior and posterior tibial arteries. In the foot there is the arcuate artery and digital arteries. Like the upper limb, there are the veins alongside with the same name, and it also has superficial and deep veins too.

The superficial veins in the lower limb are the great/long saphenous veins and the small/short saphenous vein. There is a tendency for the great saphenous vein to become varicose, created by gravity causing blood to pool and go against valve action in the leg.