# Transplantation procedure

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Pancreas transplant can be performed as an intraperitoneal or extraperitoneal procedure and the exocrine drainage of the pancreas can be managed by connection to the small intestine or urinary bladder ( Figure 90.3 ). The majority of surgeons favour an intraperitoneal approach as the peritoneal cavity has an excellent capacity for containing and reabsorbing fluid generated as a result of reperfusion pancreatitis. The steps of the surgical procedure are as follows. A midline laparotomy is performed and the retroperitoneum is exposed. The inferior vena cava (IVC) and CIA are dissected and controlled. In the enteric drainage procedure (donor duodenum anastomosed to recipient jejunum) the organ is positioned with the head of the pancreas towards the liver and the tail towards the pelvis. However, for bladder drainage (donor duodenum anasto mosed to recipient urinary bladder) the organ is positioned with the head facing towards the pelvis and tail towards the César Roux , 1857–1934, Professor of Surgery and Gynaecology , Lausanne, Switzerland. Described the Roux-en-Y loop in 1908. liver. A side-biting vascular clamp is used to partially occlude the IVC and the PV is anastomosed end to side to the IVC. Whether performing a single arterial anastomosis or separate SMA and SA anastomoses, the right CIA is most frequently used. Heparin is administered prior to clamping the CIA and the arterial anastomosis is performed. The organ is reperfused and haemostasis is ensured before performing the duodenal anastomosis (this renders the organ less mobile and more di ffi cult to access). For enteric drainage, the jejunum is identified as close as convenient to the duodenojejunal flexure and anastomosed side to side to the duodenum in two layers. This can be performed by passing the duodenum through a window in the colonic mesentery , using a Roux-en-Y technique or with the two sections of bowel lying adjacent underneath the colon ( Figure 90.3 ). The Roux-en-Y technique creates a blind-ending loop of bowel; if severe complications develop and the pancreas needs to be removed, then separation from the main enteric flow is straightforward and the need for a defunctioning stoma is avoided. In the bladder drainage tech - nique, the anastomosis to the bladder is also performed in two layers and a urinary catheter is kept in place for 7–10 days to reduce the chance of anastomotic leak.

Duodenum Spleen splenic artery and vein Figure 90.2 A healthy donor pancreas prior to preparation for surgical implantation. The pancreas is lying in its anatomical position with the head of the pancreas beneath omental fat encircled by the duodenum and the tail within the hilum of the spleen.

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