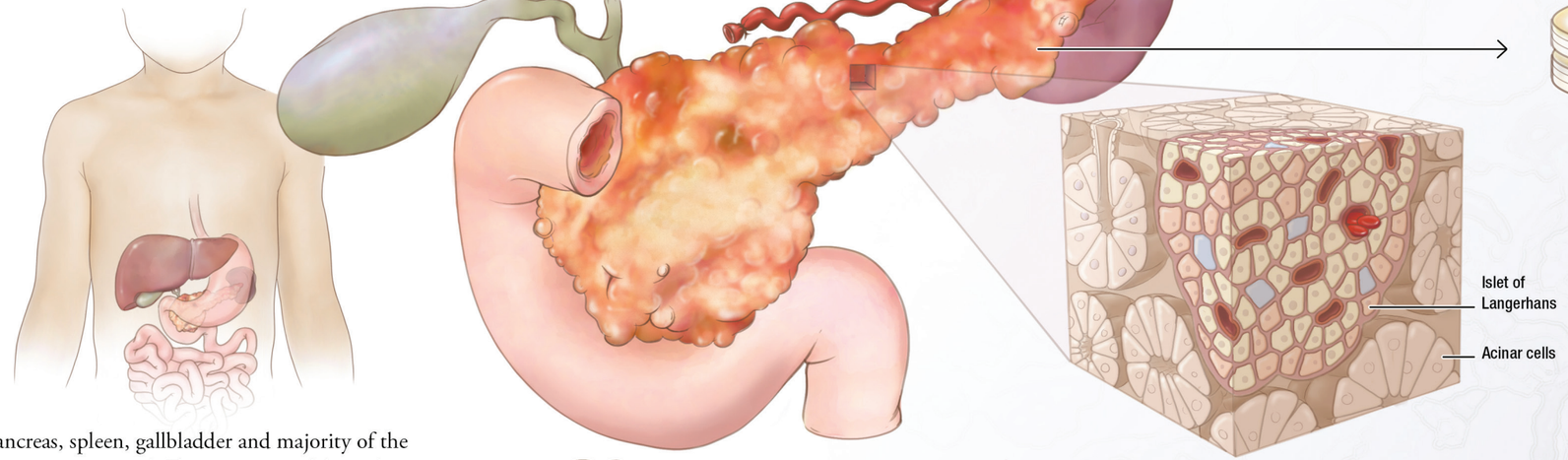
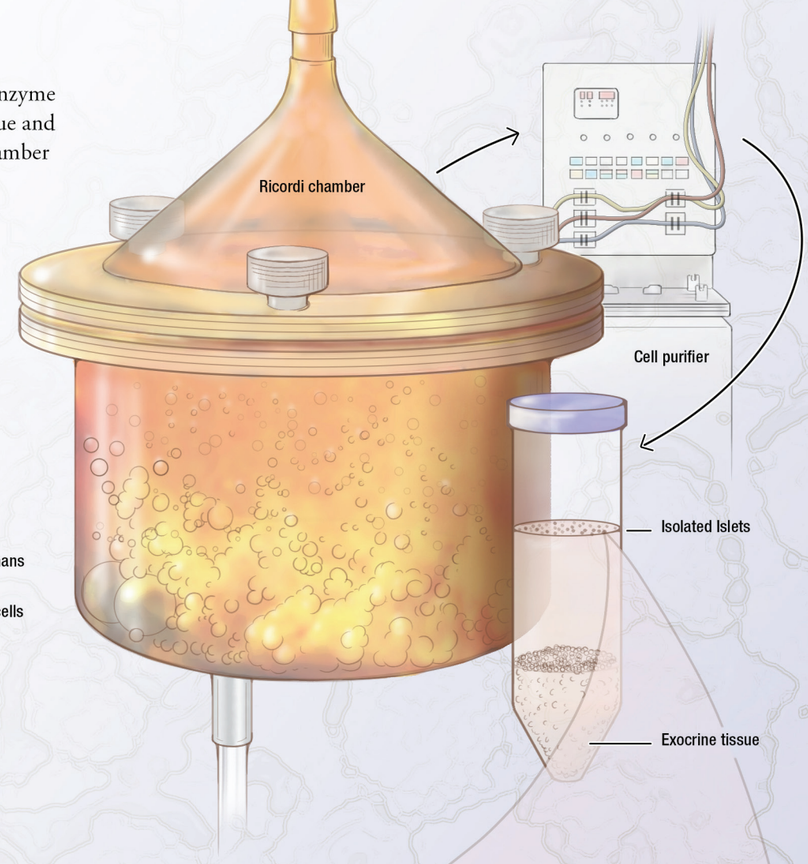
Total Pancreatectomy With Islet Autotransplantation: The Basics

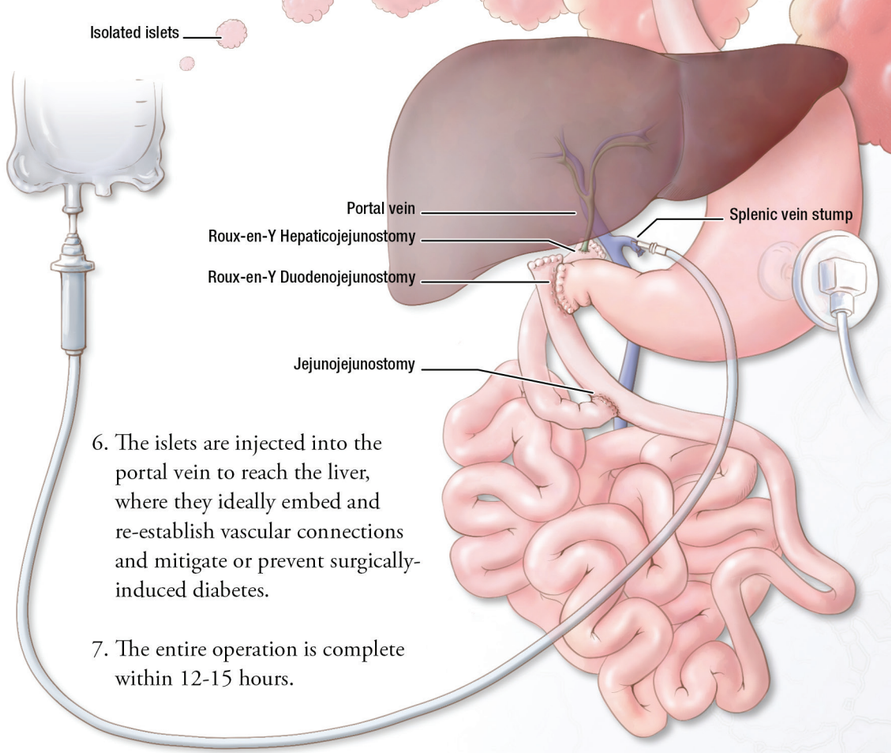


1. The pancreas, spleen, gallbladder and majority of the duodenum are removed. The pancreas is delivered to the islet isolation team.

2. The islet isolation team injects an enzyme solution into the pancreas. The tissue and enzymes are placed in a Ricordi chamber where the islets are separated from the other cell types.

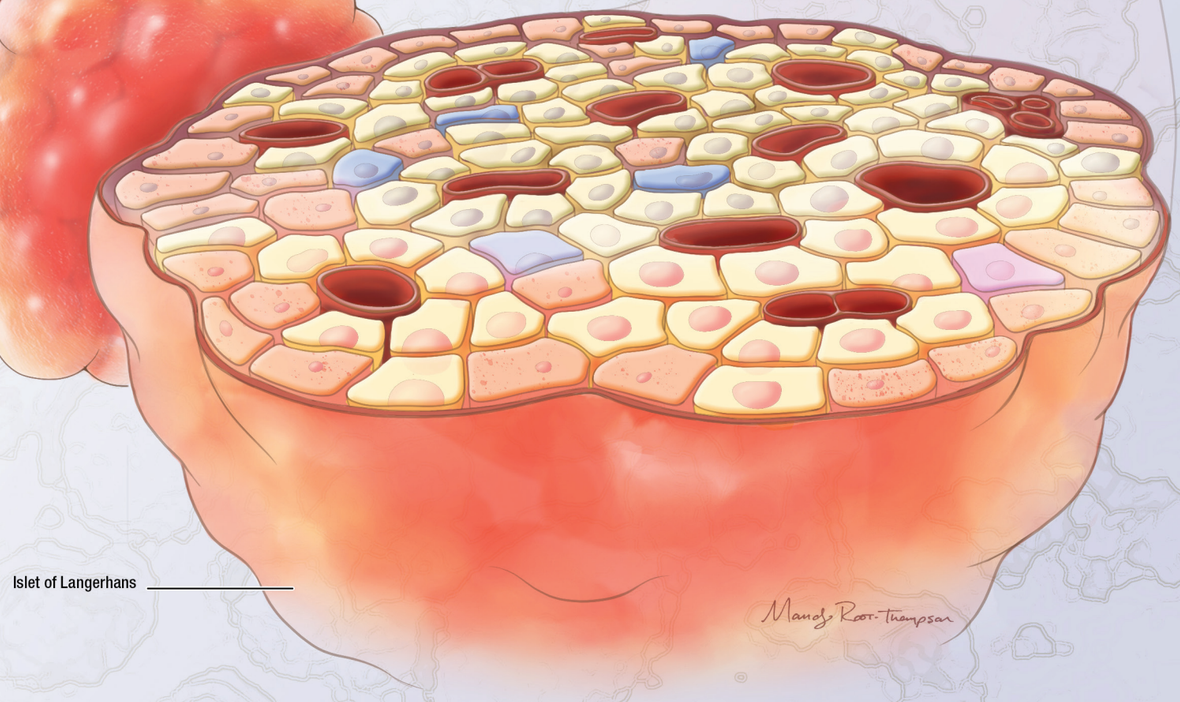


3. The concentrated islets of Langerhans are then harvested.



4. While the islet preparation takes place, the surgeon reconstructs the bile duct drainage and gastrointestinal tract.

5. A temporary gastrojejunal feeding tube and intra-abdominal drains are placed.

6. The islets are injected into the portal vein to reach the liver, where they ideally embed and re-establish vascular connections and mitigate or prevent surgically-induced diabetes.

7. The entire operation is complete within 12-15 hours.