

## BilioPancreatic Diversion (BPD)

Biliopancreatic diversion (BPD) is one of the oldest surgical procedures developed for weightloss. Using an open or laparoscopic approach, the distal (lower) portion of the stomach is resected leaving a small proximal portion of the stomach. It is then anastomosed (connected) to the ileum (distal small bowel). After this operation, food travels from the reduced stomach to the distal intestine by passing a long segment of the small bowel (Figure). This procedure decreases oral intake and reduces the absorption of the nutrients and calories eaten.

The BPD has been demonstrated to be one of the most effective bariatric procedures in terms of total weightloss, the long-term maintenance of this weightloss, and for improvement of associated diseases. The weightloss achieved is reported to be on average 70-80% of excess of weight and it is generally maintained long-term. Among all current bariatric procedures, the BPD provides the highest likelihood of improvement, or even resolution of many different diseases secondary to the obesity such as type 2 diabetes, hypertension, dyslipidemia, metabolic syndrome, fatty liver disease and obstructed sleep apnea.

Due to the complexity of the operative technique, the risk of postoperative complications after BPD is higher when compared with other bariatric procedures. Perioperative complications include bleeding, infections, gastrointestinal leakage, deep venous thrombosis, pulmonary embolism, and wound issues.

Long-term complications are mainly nutritional in nature and are due to the malabsorption created by the BPD. They include dehydration, protein, vitamin and mineral deficiencies. The vitamin and minerals at risk include iron, zinc, calcium, folate B12, and the fat soluble vitamins (A, D, E, K). Therefore, patient sunder going the BPD procedure must have close medical monitoring, strict adherence to proper dietary guidelines, and must be compliant with vitamin and mineral supplementation.