In surgery, indications for artificial nutrition comprise prevention and treatment of catabolism and malnutrition. Thus in general, food intake should not be interrupted postoperatively and the re-establishing of oral (e.g. after anastomosis of the colon and rectum, kidney transplantation) or enteral food intake (e.g. after an anastomosis in the upper gastrointestinal tract, liver transplantation) is recommended within 24 h post surgery. To avoid increased mortality an indication for an immediate postoperatively artificial nutrition (enteral or parenteral nutrition (PN)) also exists in patients with no signs of malnutrition, but who will not receive oral food intake for more than 7 days perioperatively or whose oral food intake does not meet their needs (e.g. less than 60-80%) for more than 14 days. In cases of absolute contraindication for enteral nutrition, there is an indication for total PN (TPN) such as in chronic intestinal obstruction with a relevant passage obstruction e.g. a peritoneal carcinoma. If energy and nutrient requirements cannot be met by oral and enteral intake alone, a combination of enteral and parenteral nutrition is indicated. Delaying surgery for a systematic nutrition therapy (enteral and parenteral) is only indicated if severe malnutrition is
present. Preoperative nutrition therapy should preferably be conducted prior to hospital admission to lower the risk of nosocomial infections. The recommendations of early postoperative re-establishing oral feeding, generally apply also to paediatric patients. Standardised operative procedures should be established in order to guarantee an effective nutrition therapy.