



INGUINAL HERNIA

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1. DEFINITION

A hernia is an abnormal defect or opening in the musculature of the abdominal wall. Common abdominal wall hernias occur in the inguinal region, around the umbilicus and following prior surgical procedures (incisional). A hernia contains a sac (protrusion of the inner lining of the peritoneal cavity) and visceral contents of the abdomen (usually intestine). In many cases patients are advised to undergo elective surgical repair of the hernia, owing to the small but definite risk of strangulation. Strangulation occurs when the hernias become irreducible due to excessive intestine being “caught” in the defect. The blood supply to the intestine is consequently compromised and within a few hours gangrene can occur.

Small umbilical and para-umbilical hernias may be left in place, with minimal risk. Hernias diagnosed by ultrasound alone, and not clinically apparent, do not require surgery. Small inguinal hernias in the elderly do not necessarily require surgical repair.

The inguinal canal is an oblique channel in the groin traversing the four layers of muscle that constitute the abdominal wall. The canal carries vital structures from inside the abdomen to the outside. In the male this includes the sperm channel, blood supply, nerves, veins and lymphatics of the testes and scrotum. In the female the structures include the round ligament, blood vessels and nerves. We are therefore born with a potential defect in the abdominal musculature in the groin, hence the predisposition to develop an inguinal hernia.

2. THE OPEN MESH REPAIR (LICHTENSTEIN) OPERATION

The repair of an inguinal hernia is a delicate operation which must be performed perfectly. Important principles of the operation include the meticulous protection of the spermatic cord structures and cutaneous nerves, careful dissection and division of the hernial sac, a sound repair of the entire posterior wall of the inguinal canal, and finally the restoration of the anatomy of the region. The posterior wall of the inguinal canal is repaired with a “tension-free” technique, named the Lichtenstein operation, with the additional use of a Prolene mesh. A double-layered mesh is secured, “superficial” and “deep” to the posterior wall of the canal providing the tension-free repair.

2.

The operation requires a general/regional anaesthetic of approximately one hour duration. Meticulous attention to detail is taken with regard to preparation of the hernial site, sterility, protection of vital structures, and the delicate dissection of tissues with minimal trauma. An ileo-inguinal nerve block with long-acting local anaesthetic affords post-operative pain relief. An assistant is always required for the procedure.

Prophylaxis against deep vein thrombosis is routine, and includes TED stockings, subcutaneous heparin and intermittent pneumatic calf compressors. An infusion catheter is inserted for local anaesthetic continuous administration during the first 36 hours post-operatively.

3. **OPTIONS IN SURGICAL REPAIR**

There are several different techniques available to repair an inguinal hernia. Some of these are industry-driven, relating to different forms of mesh, as developed and marketed by the pharmaceutical industry, and several new techniques have not as yet been proven in medical clinical trials to have durable results. The Lichtenstein repair, as described above, is a proven technique, with excellent long term results and has been performed since 1982.

4. **LAPAROSCOPIC INGUINAL HERNIA REPAIR**

The laparoscopic preperitoneal mesh repair is an excellent alternative approach to inguinal hernia surgery. The operation is especially indicated in men less than 70 years of age and in the case of recurrent and bilateral groin hernias. Patient selection is crucial. Dr Currer will discuss the pro's and con's of this technique.

5. **POST-OPERATIVE COURSE**

The post-operative course usually requires one to two nights in hospital. The patient should walk to the bathroom early post-operatively. The discomfort is maximal during the first post-operative day, but this is quite easily controlled with simple medication. Opiates should be avoided if possible, as they cause nausea and constipation. Patients occasionally have difficulty passing urine, and a urinary catheter may be required temporarily. During the recovery period there is some swelling in the region of the operation which is a response of the tissues to the trauma of the procedure, and this settles over several weeks. The experience of a "tightness" or tearing sensation in the groin is quite normal and recedes with time.

Within two weeks of the operation patients are 85% recovered and have resumed most of their normal activities. Most patients return to work in seven to ten days. Full recovery with complete resolution of post-operative discomfort and swelling requires eight weeks. Significant exercise should be avoided for a month and two months should be allowed prior to resuming cycling and contact sports.