

LAPAROSCOPIC HERNIA REPAIR

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A hernia occurs when part of the abdominal contents, contained in its lining, pushes through a defect in the muscle wall, much in the way an inner tube pushes through a split in the tyre casing.

Traditionally a hernia is repaired by an "open" technique involving an incision in the groin some 10-14 cms long, extending through muscle layers so that the defect in the muscle can be isolated and sutured closed – in other words, the tyre casing is repaired. A more recent form of open repair employs Prolene mesh to patch the defect on its outer aspect.

The laparoscopic technique of repair avoids the large skin and muscle cut, as well as closure of the defect with sutures under some tension. This way post-operative pain is decreased, and earlier return to discomfort-free movement is possible. The operation is done within the extraperitoneal space which is developed from the level of the umbilicus via a small (10mm) incision. This space is between the peritoneum (inner tube) and muscle layers (tyre casing). A narrow telescope (the laparoscope) is passed into the space and is connected to a television monitor which provides a magnified image of the hernia defect. Through two smaller (5mm) incisions, long narrow instruments are used to repair the hernia by placing a patch of Prolene mesh over the exposed defect, fixing it in place with a series of titanium screws, i.e. the patch is fixed to the tyre casing, between the inner tube and the split casing. The mesh is held securely by the screws, and on account of the mechanics of the repair, early return to full normal activities and work is permissible without fear of inducing hernia recurrence. This is usually achieved around seven days following surgery.

Laparoscopic repair is technically more demanding than the traditional approach, but provided attention is applied to detail, damage to intestine or major blood vessels should not occur. Although foreign material (the Prolene mesh) is left in the body, problems with infection around this have not been described. Bowel obstruction has been described following laparoscopic hernia repair, but the risk of this is considerably reduced with the extraperitoneal approach. With any form of hernia repair there is a recurrence risk: the recurrence rate for open repair is around 5% at five years, increasing to approximately 14% long term. My own series of laparoscopic repairs is being carefully audited with excellent results. . The operative technique has undergone a number of refinements since my first laparoscopic repair in 1991, resulting in a recurrence rate which is 0.1% after 5860 repairs.

Laparoscopic inguinal hernia repairs (extraperitoneal): 5600 cases
Total Laparoscopic inguinal hernia repairs: 5860 cases

With the laparoscopic approach herniae on both sides can be repaired at the same time with little increased discomfort and no increased risk of recurrence (which is associated with simultaneous bilateral open repair). It is also an excellent technique for repairing herniae that have recurred following an open repair. Post-operative urinary retention, which can be a problem following open repair, is a rare occurrence after laparoscopic repair, even in elderly men with significant urinary outflow impairment.

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