## HERNIA LAPARO-SCOPIC REPAIR

Author:
Dr. Roberto Gallardo Díaz
Dr. Héctor Sagastume

Members of the Minimally Invasive Surgery Group of Guatemala Approximately six hundred thousand surgeries of hernia repair are performed by year in the United States. Many of them are performed by means of the traditional "open" method. Some repairs of hernia are performed by means of the use of a small telescope which is known as laparoscope. If your surgeon has recommended a laparoscopic repair this article may help you understand what is a hernia and how its treatment is.

# WHAT IS A HERNIA?

A hernia happens when the internal layers of the abdominal muscle get weak as a result of which a bulge or tear is produced. In a similar way as a camera gets through a damaged tire, the internal lining of the abdomen goes through the weak area of the abdominal wall and forms a small bag that looks like a balloon. This can allow an intestinal loop or abdominal tissue to get into said bag.

- Both men and women can produce a hernia.
- It is possible to be born with a hernia (congenital), or it can develop over time.
- A hernia does not get better over time, neither dissapears by itself.

THE HERNIA CAN CAUSE SEVERE PAIN AND OTHER POTENTIALLY SERIOUS PROBLEMS THAT MIGHT CAUSE THE NECESSITY OF AN EMERGENCY SURGERY.

#### HOW DO I KNOW IF A HAVE A HERNIA?



The wall of the abdomen has natural areas of potential weakness. Hernias can develop in these or other areas because of a big effort over the abdominal wall, the aging, an injury, an old incision or an existing weakness since the birth. Any can develop a hernia at any age. Most hernias are congenital in children. In adults a natural weakness or the effort of lifting heavy objects, a persistent cough, difficulty to move the belly or to urinate can make the abdominal wall to get weak or to split.

# WHAT CAUSES A HERNIA?

- The common places for a hernia to appear are: the groin (inguinals), the umbilicus (umbilicals) and the place of a previous surgery (incisionals).
- In general, it is easy to recognize a hernia. Maybe you will note a bulge under the skin. It is possible that you feel pain when lifting heavy objects; when coughing, straining, urinating or moving the belly, or when standing on your feet or sitted during long periods.
- The pain can be acute and immediate or a dull pain that worsen at the end of the day.
- Severe and continuos pain, redness and sensibility are signs that the henia can be trapped or strangled. Such symptoms are matter of concern and indicates that you must contact immediately with your doctor or surgeon.

#### **ADVANTAGES**

What are the advantages of the hernia laparoscopic repair?

The hernia laparoscopic repair is a technique of tears' repair in the abdominal wall (muscle) by the use of small incisions, telescopes and a patch (mesh).

IT IS POSSIBLE THAT IT LETS YOU HAVE A FASTER RETURN TO WORK AND NORMAL ACTIVITIES, WITH PAIN REDUCTION IN THE CASE OF SOME PATIENTS.

#### **CANDIDATES**

Are you a candidate for a Hernia Laparoscopic Repair?

After practicing a thorough examination your surgeon will be able to determine if the hernia laparoscopic repair is convenient for you.

THE PROCEDURE MIGHT NOT BE THE ONE FOR SOME PATIENTS WHO HAVE HAD A PRIOR ABDOMINAL SURGERY, OR THOSE WHO HAVE SOME UNDERLYING MEDICAL CONDITION.

#### WHAT PREPARATION IS REQUIRED?

Generally, hernia surgeries are performed in an ambulatory way, therefore it is probably that you go home the same day of the surgery.

- The presurgical preparation includes blood analysis, medical evaluation, chest x-ray, an electrocardiogram depending on your age and medical condition.
- After your surgeon goes over the risks and potential benefits with you, it will be necessary that you give a written authorization in order to perform the surgery.
- It is recommended that you take a shower the night before or the morning of the surgery.
- If you have difficulty to move out the belly you can use an enema or any similar preparation after consulting your surgeon.
- After midnight before the surgery you do not have to eat nor drink anything, except the medications your surgeon has told you to have with a sip of water the morning of the surgery.
- Medications such as: aspirin, anti-coagulants, anti inflammatories (medication for arthritis) vitamin E must be suspended in a temporary way, during several days and until one week before the surgery.
- Stop smoking and make the necessary arrangements for any help you might need at home.

#### HOW IS THE PROCEDURE PERFORMED?

THERE ARE FEW ALTERNATIVES FOR A PATIENT WITH HERNIA. RARELY THE PATIENT IS PRESCRIBED TO WEAR A PANTY GIRDLE (GIRDLE FOR HERNIA) BECAUSE GENERALLY IT IS INEFFECTIVE. MOST HERNIAS REQUIRE A SURGICAL PROCEDURE.

The surgical procedures are performed in one of two ways:

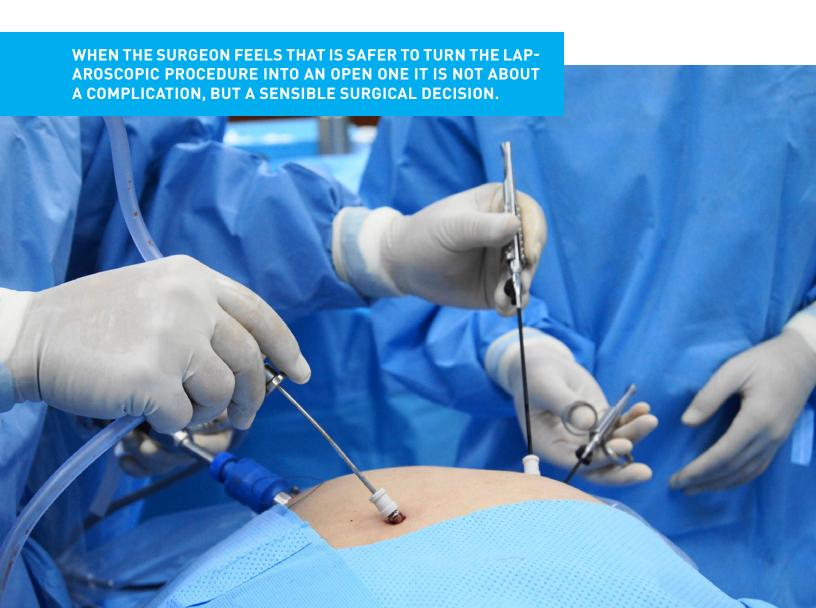
- 1. The open approaching is performed from the outside through an incision of three or four inches in the groin, or in the hernia area. The incision will extend through the skin, the subcutaneous fat, and this will let the surgeon to reach until the level of the defect. The surgeon might opt to use a small piece of surgical mesh, in order to correct the defect or the hole. This technique is generally performed with local anesthesia and sedation, however it may also be performed with spinal or general anesthesia.
- 2. The hernia laparoscopic repair. In this approach a small hollow tube is inserted through a cannula, a small hollow tube, a laparoscope (a tiny telecope) connected to a special camera that allows the surgeon to visualize the hernia and the adjacent tissue in a video screen.

Other cannulas are inserted that let the surgeon to work "from inside". Generally, three or four incisions that length a quarter of inch are needed. The hernia is repaired from behind the abdominal wall. A small piece of surgical mesh is placed over the defect of the hernia, which is fixed with small surgical staples. This procedure is usually performed with general anesthesia or, ocassionally, with regional or spinal anesthesia.

## WHAT HAPPENS IF THE SURGERY CANNOT BE PERFORMED OR BE COMPLETED BY LAPAROSCOPIC MEANS?

In a small number of patients, the laparoscopic method cannot be performed. Among the factors that can increase the possibility to choose for the "open" procedure or to turned said procedure include obesity, a history of a prior abdominal surgery that caused dense scar tissue, inability to visualize organs, or bleeding problems during the surgery.

The decision to perform the open procedure is determined by the criteria of the surgeon, either before or during the surgery itself. When the surgeon feels that is safer to turn the laparoscopic procedure into an open one it is not about a complication, but a sensible surgical decision. The decision of turning it into an open procedure is strictly based on the patient's safety.



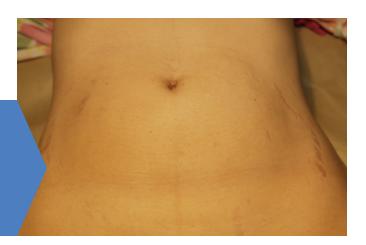
### WHAT TO EXPECT AFTER THE SURGERY?

- After surgery the patient will be moved to the recovery room where he (she) will be monitored during one or two hours until he (she) is totally awaken.
- As son as he (she) is awaken and be able to walk he (she) will be able to go home.
- With any hernia surgery you may expect to have some pain, specially during the first twenty-four or forty-eight hours.
- The patient is encouraged to rise and to walk the day after the surgery.
- With the laparoscopic hernia repair, it is probably that the patient can return to his (her) normal activities in a short time. Activities such as: taking showers, driving his (her) car, climbing stairs, lifting up things, working or having intercourse are included.
- Call the doctor's clinic for a medical control appointment before the next two weeks from your surgery.

## WHAT COMPLICATIONS MAY HAPPEN?

- Any surgery may present complications. The main complications of any surgery are bleeding and infection, that are slightly frequent in the case of a laparoscopic hernia repair.
- There is a slight possibility of risk of suffering an injury of the urinary bladder, intestines, blood vessels, nerves or the sperm duct that goes to the testicle.
- It is not rare to experience a difficulty to urinate after the surgery, and it is possible that it may be necessary to insert a tube in the urinary bledder during a time of one week.
- Even when the hernia has been repaired exists the possibility of its repetition. It is unknown the rate of reappearence of long term. Your surgeon will help you decide if the risks of the laparoscopic hernia repair are minor than the risks of not treating the condition.

THE SURGERY DOES NOT LEAVE MARKS, ONLY THOSE LEFT BY NATURE.



# WHEN TO CALL YOUR DOCTOR

Be sure to call your doctor or surgeon if any of the following symptoms are presented:

- Fever above 101°F (39°C) that does not drop.
- Bleeding.
- Abdominal or groin swelling that goes up.
- Pain that is not relieved with medications.

- Nausea or persistent vomits
- Impossibility to urinate
- Shivers.
- Persistent caughing or short of breath
- Purulent drainage (pus) from any incision
- Redness around any of the incisions that worsen or gets bigger.
- Impossibility to eat or to drink liquids.

The present article does not pretend to replace the medical consultation with your surgeon over the necessity of getting a laparoscopic surgery of inguinal hernia. If you have any questions reffered to your necessity of hernia surgery, its alternatives, the invoicing or the covering of the insurance, or about the training and experience of your surgeon, do not hesitate in asking such surgeon or the personnel of the clinic about it. If you have questions over the surgery or the subsequent control, you are requested to talk about such subjects with your surgeon before or after the surgery.