



## YOUR GUIDE TO

# INCISIONAL HERNIAS

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## Introduction

**Please take note of the following before starting any of the exercises in this guide:**

- The information contained in this guide is intended to assist in managing your recovery.

- Many people have found quick and lasting relief from their hernia related symptoms by acting upon the information provided, but everyone decides for themselves what to do with this information. Should you doubt a particular exercise in your situation, please consult your health professional.

**When consulting your health professional, it is wise to take this guide with you to show them.**

- This guide is complimentary to other medical services and is not intended as a substitute for a health care provider's consultation.

- Never disregard medical advice or delay in seeking it because of something you've read in IPRS's "Your Guide to Incisional Hernias".

# What is an Incisional Hernia?

Incisional hernias, also often referred to as Ventral hernias, may occur in the area of any prior surgical incision. These hernias can vary in size from very small to very large and complex. Incisional hernias develop in up to 11% of surgical abdominal wounds with a possible recurrence following older, conventional, suture-only type repairs of up to 44%.



These hernias most commonly develop as the result of:

- Disruption along or adjacent to the area of abdominal wall incision closure
- Tension placed on the tissue as a result of suturing
- Other inhibitors to adequate healing (infection, poor nutrition, long smoking history, obesity or metabolic diseases).

## WHERE DO INCISIONAL HERNIAS DEVELOP?

Incisional hernias present as a bulge or protrusion at or near the area of the prior surgical incision scar. Although most commonly occurring along mid-line incisions (those incisions centrally located between the breast bone and pubis), virtually any prior abdominal surgery can subsequently develop an Incisional hernia. These include those from large abdominal procedures (intestinal surgery, vascular surgery) to small incisions (appendectomy or laparoscopy). Again, these hernias can occur at any incision, but tend also to be more complex in mid-line incisions.

## HOW DO INCISIONAL HERNIAS DEVELOP?

Incisional hernias may develop soon after the original surgery, or at any time thereafter. Most however, become evident within 2 years or less of the initial surgery. Incisional hernias gradually increase in size once they develop and become gradually more symptomatic. A bulge may not be evident at the hernia site initially and pain may be the only early symptom. These hernias develop in many cases as a result of too much tension placed when closing the abdominal incision. Tension creates poor healing, swelling, wound separation and eventual Incisional hernia formation.

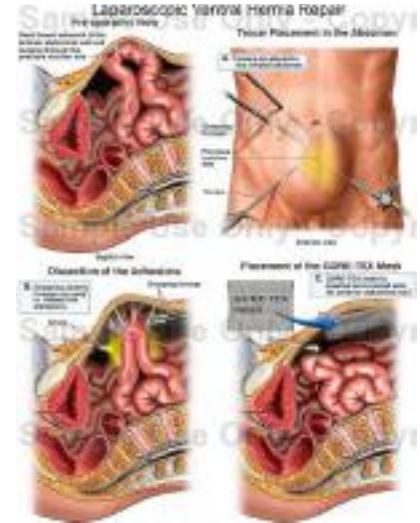
Pictures from: North-Penn Hernia Institute <http://hernia.tripod.com/index.html>

## WHAT TREATMENT IS AVAILABLE FOR INCISIONAL HERNIAS?

Current research recommends that a surgical technique that does not place added tension on the involved tissues is needed for the prevention of reoccurrence and effective repair of an Incisional hernia. The latest technique uses laparoscopy and the placement of a 'mesh' to repair the hernia.

A 'mesh' is a sterile, pliable and yet remarkably strong 'patch' that covers and reinforces the hernia defect and surrounding weakened tissue. In this type of surgery, the mesh is placed broadly, under the defect in the muscle layer of the abdominal wall. The mesh extends well beyond the under edges of the hole or defect, and is not merely sewn to the hernia edges. Organs within the abdomen are protected from injury from the mesh by a naturally occurring membrane called the 'peritoneum', which is neither cut nor entered in this repair under most circumstances. Adhesions to the intestine are thereby avoided. In smaller and uncomplicated Incisional hernias, local anaesthesia may be used and discharge on the same day is anticipated.

This approach assures an effective repair without tension and without the need for tight and painful tension suture placement. The result is a more effective repair with a lower recurrence rate and a more rapid and less uncomfortable recovery. This method is also applicable to most, but not all previously repaired recurrent Incisional hernias.



## ARE ALL PATIENTS CANDIDATES FOR LAPAROSCOPIC REPAIR OF INCISIONAL HERNIAS?

Although the latest laparoscopic technique for Incisional hernia repair is widely used, some patients may not be acceptable candidates for this technique if:

- The Incisional hernia is recurrent i.e. the Incisional hernia has been repaired previously using a mesh. Consultation and a comprehensive evaluation if necessary before any repair on a recurrent Incisional hernia.
- The patient has concurrent abdominal wall infections, drainage or open wounds.
- The patient has a large or complex Incisional hernia. The repair of these types of hernias, often require general anaesthesia as well as a potential overnight hospital stay. Consultation and comprehensive evaluation is necessary to appropriately outline the

operative approach in these large and complex cases. The risks of general anaesthesia should be discussed with the patient.

- The patient does not have the ideal body weight for this technique. For the best results and fastest recovery

following Incisional hernia repair, it is necessary for the patient to be at or near their ideal body weight. It is necessary that patient be no more than 20% above their ideal body weight for safe and successful repair of Incisional hernias.

## When can I return to normal activities?

**Note:** The following recommendations are appropriate under most circumstances following Inguinal (Unilateral or Bilateral), Umbilical or Femoral hernias repair. Recovery following Incisional and or more complex hernias may be somewhat longer depending on the nature and complexity of the hernia, and patient over-all health status.

Under most circumstances following Inguinal (Unilateral or Bilateral) hernia repair using the laparoscopic technique, patients are permitted to drive in about 2-3 days.

People's job descriptions and duties do vary.

- **Sedentary job** (e.g. standing or sitting at a desk, counter or computer; not requiring lifting over 50 pounds; short distance driving):

patients may safely return to work within 2-3 days including driving to and from work.

- **Light to moderate physical activity** (e.g. delivery personnel, maintenance workers, light construction workers, retail sales, mechanics, plumbers and not requiring lifting over 50-80 pounds): patients can usually return to work, unrestricted in most cases, after 10-14 days.
- **Heavy labourers** (e.g. heavy construction workers, climbing necessary, required to lift more than 80 pounds): patients may require 2-3 weeks of recuperation to return to both a safe and comfortable workplace without employment restrictions. If available return to light activity in 1 week, or moderate activity in 2 weeks should be considered.

## What about exercise?

**The British Hernia Centre encourages as much activity as soon as possible.** Short and more frequent periods of activity are more beneficial than longer, more strenuous activity. The main focus of the exercise programme is to strengthen the abdominal muscles. This will improve and give additional support to the injured area and prevent a re-occurrence.

It is important that while exercising, the intra-thoracic pressure is not increased (Valsalva effect) and the abdominal muscles are not strained. This can be avoided by using the correct breathing techniques while doing the exercises. During all exercises do not hold your breath. For the duration of the exercise you should breathe out during the strenuous phase of the exercise and breathe in when relaxing. This will be indicated on the exercise sheet later on.

### WHAT EXERCISE SHOULD I DO?

- **24-48 hours after surgery:** Light stretching is recommended. Avoid straining and over-stretching.
- **After GP clearance:** Isometric contractions (muscular contractions with no associated movement)

**The information in this leaflet comes from extensive research that IPRS has done, and our own experience and results. The following are user friendly documents to gain more information:**

- Emedicinehealth.com (<http://www.emedicinehealth.com>)
- The British Hernia Centre (<http://www.hernia.org/>)

References:

1. North Penn Hernia Institute.
2. British Hernia Centre: 1999-2005

Exercises >>>>

## Exercises phase 1

It is important that you do these exercises gently. You should feel a stretch and the muscles working, but should not feel discomfort. Use your own comfort levels to determine the intensity at which you do the exercises.

**IMPORTANT:** If any of your hernia symptoms return, stop and consult your GP.

### STRETCHING EXERCISES:

28-48 hours after surgery

Repeat each of these stretches two times for at least 30 seconds. Hold a steady stretch, do not bounce, do not force into pain.



#### ABDOMINAL STRETCH

Standing against a wall. Clasp hands together and slowly reach hands up to the ceiling as far as you can. You should feel a stretch in your abdominal muscles. Then alternating arms, slowly push one arm up to the ceiling then the other.



#### LUMBAR ROTATION

Slowly rock knees from side to side in a small, pain-free range of motion. Allow the lower back to rotate slightly.

## Exercises phase 2

### STRENGTHENING EXERCISES:

2-6 weeks after surgery

Do 3 sets of 10 of each exercise. Do each exercise slowly and controlled. Remember to concentrate on breathing correctly.



#### UNILATERAL ISOMETRIC HIP FLEXION

Tighten stomach muscles and raise knee to outstretch arm. Gently push, keeping arm straight and trunk rigid. Breathe out when pushing against the knee.



#### BILATERAL ISOMETRIC HIP FLEXION

Tighten stomach muscles and raise both knees to outstretched arms. Gently push, keeping arms straight and trunk rigid. Breathe out when pushing against the knee.



#### BRIDGING

Slowly raise hips from floor, keeping stomach tight. Breathe out when lifting hips.



#### PELVIC TILT

Flatten back by tightening stomach muscles and buttocks while tilting pelvis towards you. Breathe out while flattening back.

# Exercises phase 3

## STRENGTHENING EXERCISES: 6+ weeks after surgery

Do 3 sets of 10 of each exercise. Do each exercise slowly and controlled. Remember to concentrate on breathing correctly.



### STRAIGHT LEG RAISE

Tighten stomach muscles and slowly raise locked leg 8-12 inches from floor. Breathe out when lifting leg.



### CURL UP

With arms on your thighs, tilt pelvis to flatten back. Raise shoulders and head from floor. Use arms to support trunk if necessary. Only lift shoulders until the tips of your fingers reach your knees. Breathe out when lifting shoulders.



### DIAGONAL CURL-UP

With arms at sides, tilt pelvis to flatten back. Raise head and shoulders, rotating to one side as shoulder blades clear floor. Breathe out when lifting shoulders.

# Contact us

This guide is designed to assist you in the self-management of your injury/condition.

We are here to assist your recovery in the shortest but safest possible time. If you have any uncertainties or queries regarding the information, please do not hesitate to contact us on:

Phone 017890400999 / 07870166861  
[www.mdphysiotherapy.co.uk](http://www.mdphysiotherapy.co.uk)