# **Dr. James B. Lowe – Plastic Surgery** INGUINAL HERNIA REPAIR & RECONSTRUCTION INFORMATION SHEET AND INFORMED CONSENT

## Instructions

This is an informed consent document that has been prepared to assist your plastic surgeon to inform you concerning inguinal hernia and trunk surgery, its risks, and alternative treatment.

It is important that you read this information carefully and completely. Please initial each page, indicating that you have read the page and sign the consent for surgery as proposed by your plastic surgeon.

## **INTRODUCTION**

Inguinal hernia surgery involves the repair of a weakness or defect in the abdominal wall in the groin of men or women. This defect can be the result of a defect from birth or recurrent stress on the support structures of this region. Once a hernia forms it requires surgical repair and will not heal on its own. The hernia usually gets worse over time and if not fixed tissue may become trapped in the hernia (incarcerated) resulting in significant risk for the patient if untreated. The size of the inguinal hernia and its location determine the approach to repair and the recovery in most cases. Most inguinal hernias repaired by plastic surgeons are recurrent, failed conventional treatment, and are usually more challenging to repair. Inguinal hernia reconstruction may require the movement of flaps or tissue, foreign mesh, or staged procedures.

Often patients referred to plastic surgeons for repair of inguinal hernias have experienced a recurrence or other complication. Plastic surgeons use a variety of techniques to close complex hernias that involve the movement of tissue from one place to the other. Plastic surgeons usually attempt to manage a defect with the simplest approach first that is associated with the least amount of risk or deformity. Often time patients with large defects will require multiple procedures to maximize the results. The risk of inguinal hernia surgery relates to the size and location of a defect and the reconstructive procedure planned. In some cases Dr. Lowe will want to obtain a special study such as a XRAY, ULTRASOUND, MRI, or CAT scan to evaluate a defect and its involvement.

Inguinal hernia reconstruction can be performed in a variety of ways. Most inguinal hernia surgery requires an external approach, but in some cases a scope will be used to help. Permanent mesh or prosthetic material may be placed on the outside or inside of your abdomen to decrease the risk of recurrence. Flaps or abdominal wall can be moved from an area that is close or far from a defect. Your plastic surgeon will describe the type of abdominal wall reconstruction that you are undergoing in further detail. When a plastic surgeon is involved with inguinal hernia and abdominal wall reconstruction it is because the problem is challenging. The risk and benefits of inguinal hernia and abdominal wall reconstruction should be discussed in detail prior to surgery.

## ALTERNATIVE TREATMENT

All patients undergoing inguinal hernia repair should discuss with the surgeon the alternative treatments. Many times there are a number of procedures options available. There is the option to not undergo the reconstruction or get a second opinion about the reconstructive option best for you. Each reconstructive option has it own risk and benefits and questions regarding alternative forms of treatment should be discussed with Dr. Lowe.

## Initials

## **RISKS OF INGUINAL HERNIA REPAIR**

Inguinal hernia repair often involves the movement of tissue from one area to another. This movement of tissue may result in loss of function or disability. With any type of activity there is inherent risk. An individual's choice to undergo a surgical procedure is based on the comparison of the risk to potential benefit. Although the majority of patients do not experience the following complications, you should discuss each of them with your plastic surgeon to make sure you understand the risks, potential complications, and consequences of surgery.

**Bleeding** – It is possible, though unusual, that you may have problems with bleeding during or after surgery. Should postoperative bleeding occur, it may require emergency treatment to stop the bleeding or a trip back to the operating room. Certain reconstructive operations are more prone to bleeding (i.e. face or scalp). Often these areas will bleed for several hours and then stop. When a large amount of tissue is moved particularly when procedures are combined there may be a need for blood transfusion. Do not take any aspirin or anti-inflammatory medications for ten days before surgery, as this contributes to a greater risk of bleeding. Hypertension (high blood pressure) that is not under good medical control may cause bleeding during or after surgery. Accumulations of blood under the skin may delay healing and cause scarring.

<u>Fluid collections</u> – Fluid collections can form in the period following inguinal hernia repair. These collections are called seromas and may be prevented by the use of compression or drains. If the patient develops a fluid collection it may require multiple tapping, medical treatment, a new drain, or a trip back to the operating room.

 $\underline{Infection}$  – Infection is unusual after inguinal hernia repair. Should an infection occur, additional treatment including antibiotics may be necessary. Infection can cause surgical wound to open and result in scarring. Infection is not uncommon in patients with open wounds or inflammation in the area of the skin lesion. Mesh is used in most inguinal hernia surgery and infection would require removal in most cases.

**Bowel Injury or Fistulas** - The bowel can be injured during inguinal hernia repair. This is usually the result of removing scar from the defect. If the bowel is injured it is usually repaired without complications. If the bowel leaks after repair then and infection can occur or a fistula may form to the skin. Further surgery is often required in these situations.

<u>Scarring</u> – Although good wound healing after a surgery is expected, abnormal scars may occur both within the skin and deeper tissues. Scars may be unattractive and of different color than surrounding skin. There is the possibility of visible marks from sutures. Additional treatments including surgery may be needed to treat scarring. Scarring is dependent of the size and area of the defect.

<u>Scar length</u> – The length of your scars with soft tissue surgery is related to the size of the defect. Often the surgeon will limit the scar but need to lengthen it in the future if redundancy does not settle out.

**Skin compromise** – Certain soft tissue procedures require significant undermining and can be associated with separation of the wound. This wound separation will require local wound care and scar revision. Wound separation may be the result of skin death or infection and certain areas are more prone to this problem than others. Smoking will compromise the skin so patients can not smoke for 2 months prior to surgery and at least one month after surgery. Avoid the sun for 6 months after surgery.

**Damage to deeper structures** – Deeper structures such as nerves, blood vessels, and muscles may be damaged during the course of surgery. The potential for this to occur varies with the type of flap

procedure. Injury to deeper structures may be temporary or permanent. Undermining or flaps are often associated with post operative pain or numbness which usually resolves within several months. Any procedure requiring a great deal of skin or soft tissue undermining or movement will result in numbness and pain.

<u>Unsatisfactory result</u> – Inguinal hernia repair can result in a deformity that is greater than was anticipated. Dr. Lowe tries to offer patients the best cosmetic result in a timely way while taking into account your medical problems and personal wishes. There is the possibility of an unsatisfactory result from the reconstructive surgery. The surgery may result in unacceptable visible or tactile deformities, loss of function, or structural mal-position. You may be disappointed that the results of surgery do not meet your expectations and additional surgery may be necessary should the result be unsatisfactory.

<u>Numbness</u> – There is the potential for permanent numbness following inguinal hernia repair. The occurrence of this is not predictable. It is rare to have numbness past 6 months, but numbness may not totally resolve in some cases. As nerves recover they may become hypersensitive or even painful. Sometimes a nerve will need to be removed or cut during the surgery.

<u>Asymmetry</u> – The human body is normally asymmetrical. There can be a variation from one side to the other in the results obtained body contouring. If a surgical scar is required it is unlikely to ever be completely symmetric. If a flap is moved from one are to another this will come at some cost in symmetry.

<u>Chronic pain</u> – Chronic pain may occur very infrequently after inguinal hernia repair. In some cases surgery may be required and the pain may be permanent.

<u>Skin irregularity</u> – Skin irregularities, bumps, and areas of stiffness usually occur after inguinal hernia repair. Most of these areas resolve with time but some irregularities may be permanent or require revision. External message techniques may be helpful in some situations.

<u>Allergic reactions</u> – In rare cases, local allergies to tape, suture material, or topical preparations have been reported. Systemic reactions which are more serious may occur to drugs and prescription medicines. Allergic reactions may require additional treatment.

**Delayed healing** – Wound disruption or delayed wound healing is possible. Some areas of the body may not heal normally and may take a long time to heal. Skin compromise may require frequent dressing changes or further surgery to remove the non-healed tissue.

**Long term effects** – It is important to remember to avoid sun exposure for 6 months after inguinal hernia repair. Sun tanning can result in tissue loss and scarring even when a bathing suit covers the area. Scars tend to fade with time but will be significantly harmed by sun exposure. Sun exposure will also increase your risk of future skin cancers. Patients may require long term limitations of lifting and body support following inguinal hernia repair.

<u>Need for revision</u> – Certain inguinal hernia operations are more likely to require revision surgery. In difficult abdominal wall defects Dr. Lowe will often tell you to expect a number of reconstructive stages to optimize the results. This may involve scar revision, mesh placement, hernia repair, or wound debridement. It is not uncommon for patients to require multiple procedures to repair complex inguinal wall defects.

<u>Staged procedures</u> – When the inguinal hernia reconstructive surgery is large, staged reconstruction may be necessary. This may involve moving tissue from one are to the next and creating a new defect in the

process. Often local tissue will be moved with an attachment that must be divided at a later date. These staged procedures are often necessary to obtain the best results or abdominal wall support.

**Functional alterations** – Changes may occur after inguinal hernia surgery that may limit a patient's function. Patients may recovery at different rates following surgery, but the more surgery you have done the more difficult the recovery. Flaps that involve the harvest or movement of muscle will result in loss of function of the muscle moved. Flaps that involve the movement of soft tissue only usually leave a greater scar without loss of muscle function.

**Surgical anesthesia** – Both local and general anesthesia involve risk. There is the possibility of complications, injury, and even death from all forms of surgical anesthesia or sedation. If you are over 45 years of age, have a known medical condition, or you are in any way concerned, a pre-operative evaluation from your primary care physician or cardiologist is recommended prior to surgery.

**Flap Failure or Flap Death** – It is possible that you may have a bigger inguinal hernia defect after failed surgery than before surgery. Not all reconstructive flaps or adjacent tissue transfers are successful. Flaps can fail for a variety of reasons from poor blood flow, trauma, clot, or inflammation. If the flap or adjacent tissue transfer fails other procedures or operations may be required. Certain types of flaps have a higher failure rate. Radiation or injury to the local area may increase the rate of failure of your reconstruction. Infection or bleeding may play a roll in the loss of a flap. Your surgeon will discuss the risk of failure and options if failure occurs prior to your surgery. It is important that physicians involved in the patients care, the family, and patient are diligent in watching the area of concern.

**Deep Venous Thrombosis, Cardiac and Pulmonary Complications-** Surgery, especially longer procedures, may be associated with the formation of, or increase in, blood clots in the venous system. Pulmonary complications may occur secondarily to both blood clots (pulmonary emboli), fat deposits (fat emboli) or partial collapse of the lungs after general anesthesia. Pulmonary and fat emboli can be life-threatening or fatal in some circumstances. Air travel, inactivity and other conditions may increase the incidence of blood clots traveling to the lungs causing a major blood clot that may result in death. It is important to discuss with your physician any past history of blood clots, swollen legs or the use of estrogen or birth control pills that may contribute to this condition. Cardiac complications are a risk with any surgery and anesthesia, even in patients without symptoms. Should any of these complications occur, you may require hospitalization and additional treatment. If you experience shortness of breath, chest pains, or unusual heart beats, seek medical attention immediately.

<u>Other Serious Risks and Death</u> – Inguinal hernia surgery is usually a very safe and commonly performed operation. In rare cases the reconstruction can be a very dangerous procedure. It such case the hernia may be incarcerated or bowel or other vital structure may be trapped in the defect. Patients can develop infections in the abdomen or in the material used to reconstruct the abdominal wall. These infections can result in death. Patients may develop problems breathing after surgery that may result in extended stays in the intensive care unit. Sometimes patients are unable to breath again on their own after surgery. The stress of surgery can also result in cardiac compromise in some patients. This compromise may be life threatening in some situations.

## **ADDITIONAL ADVISORIES**

**Long-Term Results-** Subsequent alterations in the appearance of your body may occur as the result of aging, sun exposure, weight loss, weight gain, pregnancy, menopause or other circumstances not related to your surgery.

<u>Metabolic Status of Massive Weight Loss Patients-</u> Your personal metabolic status of blood chemistry and protein levels may be abnormal following massive weight loss and surgical procedures to make a patient loose weight. Individuals with abnormalities may be a risk for serious medical and surgical complications, including delayed wound healing, infection or even in rare cases, death.

**Body-Piercing Procedures-** Individuals who currently wear body-piercing jewelry or are seeking to undergo body-piercing procedures must consider the possibility that an infection could develop anytime following this procedure. Treatment including antibiotics, hospitlalization or additional surgery may be necessary.

**Female Patient Information-** It is important to inform your plastic surgeon if you use birth control pills, estrogen replacement, or if you suspect you may be pregnant. Many medications including antibiotics may neutralize the preventive effect of birth control pills, allowing for conception and pregnancy.

**Intimate Relations After Surgery**- Surgery involves coagulating of blood vessels and increased activity of any kind may open these vessels leading to a bleed, or hematoma. Increased activity that increased your pulse or heart rate may cause additional bruising, swelling, and the need for return to surgery and control bleeding. It is wise to refrain from sexual activity until your physician states it is safe.

**Medications-** There are many adverse reactions that occur as the result of taking over-the-counter, herbal, and/or prescription medications. Be sure to check with your physician about any drug interactions that may exist with medications that you are already taking. If you have an adverse reaction, stop the drugs immediately and call your plastic surgeon for further instructions. If the reaction is severe, go immediately to the nearest emergency room. When taking the prescribed pain medications after surgery, realize that they can affect your thought process and coordination. Do not drive, do not operate complex equipment, do not make any important decisions and do not drink any alcohol while taking these medications. Be sure to take your prescribed medication only as directed.

**Mental Health Disorders and Elective Surgery-** It is important that all patients seeking to undergo elective surgery have realistic expectations that focus on improvement rather than perfection. Complications or less than satisfactory results are sometimes unavoidable, may require additional surgery and often are stressful. Please openly discuss with your surgeon, prior to surgery, any history that you may have of significant emotional depression or mental health disorders. Although many individuals may benefit psychologically from the results of elective surgery, effects on mental health cannot be accurately predicted.

#### Smoking, Second-Hand Smoke Exposure, Nicotine Products (Patch, Gum, Nasal Spray)-

Patients who are currently smoking, use tobacco products, or nicotine products (patch, gum, or nasal spray) are at a greater risk for significant surgical complications of skin dying, delayed healing, and additional scarring. Individuals exposed to second-hand smoke are also at potential risk for similar complications attributable to nicotine exposure. Additionally, smokers may have a significant negative effect on anesthesia and recovery from anesthesia, with coughing and possibly increased bleeding. Individuals who are not exposed to tobacco smoke or nicotine-containing products have a significantly lower risk of this type of complication. Please indicate your current status regarding these items below:

\_\_\_\_I am a non-smoker and do not use nicotine products. I understand the risk of second-hand smoke exposure causing surgical complications.

\_\_\_\_I am a smoker or use tobacco / nicotine products. I understand the risk of surgical complications due to smoking or use of nicotine products.

It is important to refrain from smoking at least 6 weeks before surgery and until your physician states it is safe to return, if desired.

<u>Post-bariatric & large inguinal hernia defect patients</u>: It is highly recommended that you quit smoking before undergoing this procedure as it will adversely affect your outcome. Only under certain circumstances, clearly specified by your plastic surgeon, should this procedure be done on an individual who smokes.

## ADDITIONAL SURGERY NECESSARY (RE-OPERATIONS)

There are many variable conditions in addition to risks and potential surgical complications that may influence the long term result from abdominal reconstructive surgery. Even though risks and complications occur infrequently, the risks cited are particularly associated with reconstruction. Other complications and risks can occur but are even more uncommon. Should complications occur, additional surgery or other treatments may be necessary. The practice of medicine and surgery is not an exact science. Although good results are expected, there is no guarantee or warranty expressed or implied, on the results that may be obtained. Infrequently, it is necessary to perform additional surgery to improve your results.

## PATIENT COMPLIANCE

Follow all physician instructions carefully; this is essential for the success of your outcome. It is important that the surgical incisions are not subjected to excessive force, swelling, abrasion, or motion during the time of healing. Personal and vocational activity needs to be restricted. Protective dressings and drains should not be removed unless instructed by your plastic surgeon. Successful post-operative function depends on both surgery and subsequent care. Physical activity that increases your pulse or heart rate may cause bruising, swelling, fluid accumulation and the need for return to surgery. It is wise to refrain from intimate physical activities after surgery until your physician states it is safe. It is important that you participate in follow-up care, return for aftercare, and promote your recovery after surgery.

## FINANCIAL RESPONSIBILITIES

The cost of surgery involves several charges for the services provided. The total includes fees charged by your surgeon, the cost of surgical supplies, anesthesia, laboratory tests, and possible outpatient hospital charges, depending on where the surgery is performed. Depending on whether the cost of surgery is covered by an insurance plan, you will be responsible for necessary co-payments, deductibles, and charges not covered. The fees charged for this procedure do not include any potential future costs for additional procedures that you elect to have or require in order to revise, optimize, or complete your outcome. Additional costs may occur should complications develop from the surgery. Secondary surgery or hospital day-surgery charges involved with revision surgery will also be your responsibility. In signing the consent for this surgery/procedure, you acknowledge that your have been informed about its risk and consequences and accept responsibility for the clinical decisions that were made along with the financial costs of all future treatments.

#### **HEALTH INSURANCE**

Most health insurance companies cover inguinal hernia repair and reconstruction. Insurance companies often require plastic surgeons to obtain permission to perform and elective reconstruction in advance. Insurance companies may require photographs of the defect for documentation prior to surgery. If you request Dr. Lowe to proceed with a reconstruction without insurance permission you may be responsible for unpaid fees to the pathologist or Dr. Lowe. Please, carefully review your health insurance subscriber-information pamphlet and discuss any questions with Dr. Lowe. Please note most health insurance companies exclude coverage for cosmetic surgical operations such as abdominoplasty or any complications that might occur from surgery. Please carefully review your health insurance subscriber-information pamphlet or contact your insurance company for a detailed explanation of their policies for covering procedures. Most insurance plans exclude coverage for secondary or revisionary surgery.

#### DISCLAIMER

Informed-consent documents are used to communicate information about the proposed surgical treatment of a disease or condition along with disclosure of risks and alternative forms of treatment(s), including no surgery. The informed-consent process attempts to define principles of risk disclosure that should generally meet the needs of most patients in most circumstances.

However, informed-consent documents should not be considered all-inclusive in defining other methods of care and risks encountered. Your plastic surgeon may provide you with additional or different information which is based on all the facts in your particular case and the current state of medical knowledge.

Informed-consent documents are not intended to define or serve as the standard of medical care. Standards of medical care are determined on the basis of all of the facts involved in an individual case and are subject to change as scientific knowledge and technology advance and as practice patterns evolve.

It is important that you read the above information carefully and have all of your questions answered before signing the consent on the next page.

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#### CONSENT FOR SURGERY/PROCEDURE or TREATMENT

1. I hereby authorize Dr. \_Lowe\_\_\_\_\_ and such assistants as may be selected to perform the following procedure or treatment.

## I have received the following information sheet: INFORMED CONSENT FOR INGUINAL HERNIA REPAIR AND RECONSTRUCTION

- 2. I recognize that during the course of the operations and medical treatment or anesthesia, unforeseen conditions may necessitate different procedures than those above. I, therefore, authorize the above physician and assistants or designees to perform such other procedures that are in the exercise of his or her professional judgment necessary and desirable. The authority granted under this paragraph shall include all conditions that require treatment and are not known to my physician at the time the procedure is begun.
- 3. I consent to the administration of such anesthetics considered necessary or advisable. I understand that all forms of anesthesia involve risk and the possibility of complications, injury, and sometimes death.
- 4. I acknowledge that no guarantee has been given by anyone as to the results that may be obtained.
- 5. I consent to the photographing or televising of the operation(s) or procedure(s) to be performed, including appropriate portions of my body, for medical, scientific or educational purposes, provided my identity is not revealed by the pictures.
- 6. For purposes of advancing medical education, I consent to the admittance of observers to the operating room.
- 7. I consent to the disposal of any tissue, medical devices or body parts which may be removed.
- 8. I authorize the release of my Social Security number to appropriate agencies for legal reporting and medical-device registration, if applicable.
- 9. IT HAS BEEN EXPLAINED TO ME IN A WAY THAT I UNDERSTAND:
  - A. The above treatment or procedure to be undertaken.
  - B. There may be alternative procedures or methods of treatment.
  - C. There are risks to the procedure or treatment proposed including those listed above.
  - D. I have read, understood, and have had the opportunity to ask questions concerning the above, as well as the Informed Consent for Inguinal Hernia Repair and Reconstruction information sheet.
  - E. I am satisfied with the explanation.

I CONSENT TO THE TREATMENT OR PROCEDURE AND THE ABOVE LISTED ITEMS (1-9).

Patient or Person Authorized To Sign for Patient.

Date

Witness

Initials