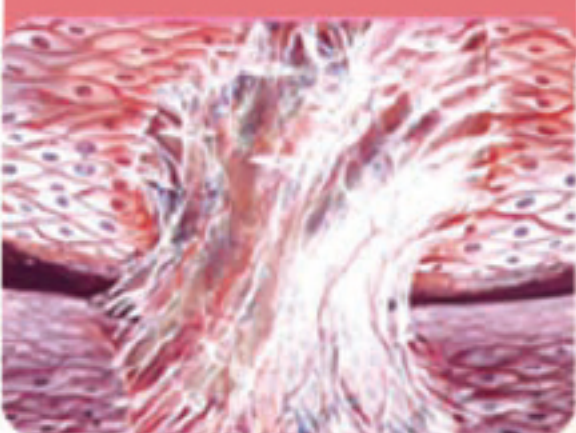


## Adhesions following Open Surgeries:

# Prevention is Better than Treatment

Fibrous scar tissue form between tissue surfaces



Adhesions refer to the formation of fibrous bands in tissues, often as a result of injury following major surgical procedures or due to underlying conditions such as endometriosis.

### Complications due to Adhesions

Although the risk of adhesions following surgery is low, complications related to adhesions are of major concern. Adhesions are often associated with clinical consequences such as chronic abdominal pain or chronic pelvic pain with severe complications such as intestinal obstruction in some cases. In addition, adhesions following major surgeries are difficult to manage and are often associated with increased rates of hospitalization, the increased operative risks and difficulty if further surgery is required. Therefore, prevention of adhesions is vital for improving patient outcomes.

**Adhesions following major surgeries are usually difficult to manage and are often associated with increased rates of hospitalization.**

Dr Crystal Chin Hsuan, Consultant Obstetrician and Gynaecologist, at Hsuan and Xiaohui OG Clinic, shared some of her clinical experiences related to the prevention and management of adhesions. "Common causes of adhesions include endometriosis, pelvic infections and previous surgery. Common complaints of patients with adhesion include abdominal pain which is non-specific in nature, majority of the time. In severe cases, adhesions may also cause intestinal obstruction, and reduced fertility. Impaired fertility related to adhesions may be due to obstruction of fallopian tubes and ovaries. To mitigate the consequences of adhesion following surgery, preventive measures such as adhesion preventive barriers can be considered besides surgical options. Patients who can be considered for the use of preventive measures such as adhesion barriers include those undergoing major open abdominal surgeries such as Caesarean-section, myomectomies and hysterectomy."

Diagnosis is often challenging due to the non-specific nature of chronic pain in patients suspected to have adhesions. There is currently no gold standard diagnostic test for identifying

**In severe cases, adhesions may also cause intestinal obstruction, and reduced fertility.**

adhesions, though it can be suspected in patients presenting with repeated episodes of chronic or acute pain following surgery. Physical examination and history may provide a clue to the diagnosis of adhesions and to exclude other causes of chronic pain. However, physical examination may remain unremarkable in majority of the cases. In case of severe pain which is not relieved by medications, minimally invasive surgery i.e. diagnostic laparoscopy can be advised.

### Minimizing the Risk of Adhesions

As primary prevention, adhesion barriers can be used during Caesarean or other major surgeries. The factor that is of prime importance is the surgical technique. Open surgeries are associated with increased risk of formation of adhesions because of tissue trauma and the involvement of certain degree of invasiveness. Therefore, preventive strategies would be better than surgical repair after formation of adhesions. Adhesion barriers minimise tissue desiccation, and thereby reduce the risk of adhesion formation. In some cases, use of adhesion barriers has helped in the return of fertility if adhesions were the primary cause of infertility leading to obstruction of fallopian tubes.

### Key Take Home Messages

- Prevention should be the first step in adhesion management instead of resolving or treating the consequences.
- Adhesion barriers are effective in improving patient outcomes.
- Patients undergoing open abdominal surgeries should consider using barrier methods to prevent the formation of adhesions.
- Patients who are managed with adhesion barriers do not require any other additional measures apart from their regular postoperative medications following surgery.

