Elbow Arthroscopy

MIDLANDS ARM AND SHOULDER CLINIC

Elbow Anatomy

The elbow is a complex hinge joint formed by the articulation of three bones - humerus, radius and ulna. The upper arm bone or humerus connects the shoulder to the elbow forming the upper portion of the hinge joint. The lower arm consists of two bones, the radius, and the ulna. These bones connect the wrist to the elbow forming the lower portion of the hinge joint.

The three joints of the elbow are:

- **Ulnohumeral joint:**
  junction between the ulna and humerus
- **Radiohumeral joint:**
  junction between the radius and humerus
- **Proximal radioulnar joint:**
  junction between the radius and ulna

The elbow is held in place with the support of various soft tissues including cartilage, tendons, ligaments, muscles, nerves, blood vessels, and bursae.

What are the different types of elbow injuries?

Some of the common elbow injuries include elbow fractures, tennis elbow, golfer's elbow, and elbow tendonitis.

What is Elbow Arthroscopy?

Elbow arthroscopy, also referred to as keyhole or minimally invasive surgery, is a surgical procedure that is performed through tiny incisions to evaluate and treat several elbow conditions.

Indications of Elbow Arthroscopy

Elbow arthroscopy is usually recommended for the following reasons:

- Debridement of loose bodies such as bone chips or torn cartilage tissue
- Removal of scar tissue
- Removal of bone spurs (extra bony growths caused by injury or arthritis that damage the ends of bones causing pain and limited mobility)
- Treatment of osteoarthritis, rheumatoid arthritis
- Osteochondritis dissecans, where loose fragments of cartilage and bone break into the joint space

Evaluation and Diagnosis

Your surgeon will review your medical history and perform a complete physical examination. Diagnostic studies may also be ordered such as X-rays, MRI or CT scan to assist in diagnosis.

Arthroscopy is a surgical procedure in which an arthroscope, a small soft flexible tube with a light and video camera at the end, is inserted into a joint to evaluate and treat various conditions.

Elbow arthroscopy is commonly performed under general anaesthesia as an outpatient procedure. You will be placed in a lateral or prone position, which allows your surgeon to easily adjust the arthroscope and have a clear view of the inside of the elbow.

Several tiny incisions are made to insert the arthroscope and small surgical instruments into the joint. To enhance the clarity of the elbow structures through the arthroscope, your surgeon will fill the elbow joint with a sterile liquid.

The liquid flows through the arthroscope to maintain clarity and restrict any bleeding. The camera attached to the arthroscope displays the internal structures of the elbow on the monitor and helps your surgeon to evaluate the joint and direct the surgical instruments to fix the problem.

At the end of the procedure, the surgical incisions are closed by sutures, and a soft sterile dressing is applied. Your surgeon will place a cast or splint to restrict the movement of the elbow.

Advantages of Elbow Arthroscopy

The advantages of arthroscopy compared to traditional open elbow surgery include:

- Smaller incisions
- Minimal soft tissue trauma
- Less postoperative pain
- Faster healing time
- Lower infection rate

Postoperative Care for Elbow Arthroscopy

The post-surgical instructions include:

- Make sure to get adequate rest.
- Raise your elbow on pillows above the level of the heart to help reduce swelling.
- Keep the incision area clean and dry.
- A compressive stocking may be applied from the armpit to the hand once the dressing is removed to decrease pain and increase range of motion.
- Your doctor will prescribe pain medications to keep you comfortable.
- Physiotherapy will be ordered to restore normal elbow strength.
- Eating a healthy diet and not smoking will promote healing.

Complications of Elbow Arthroscopy

The possible complications following elbow arthroscopy may include infection, bleeding, and damage to nerves or blood vessels.