

# Alexander Martusiewicz, MD

Shoulder and Elbow Specialist

[www.DetroitShoulderSurgeon.com](http://www.DetroitShoulderSurgeon.com)

Royal Oak  
Phone: (248) 551-9100  
Fax: (248) 551-9131

St. Clair Shores  
Phone: (586) 443-2317  
Fax: (586) 443-2318

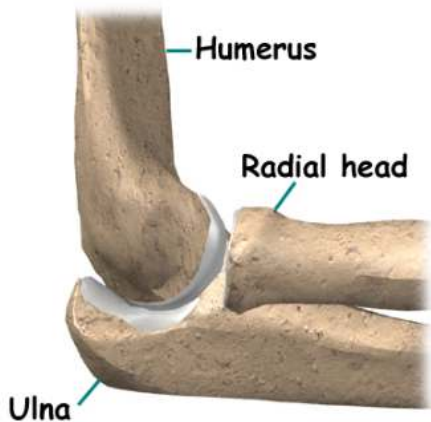
Taylor  
Phone: (313) 887-6000  
Fax: (313) 887-6005

## Elbow Arthroscopy

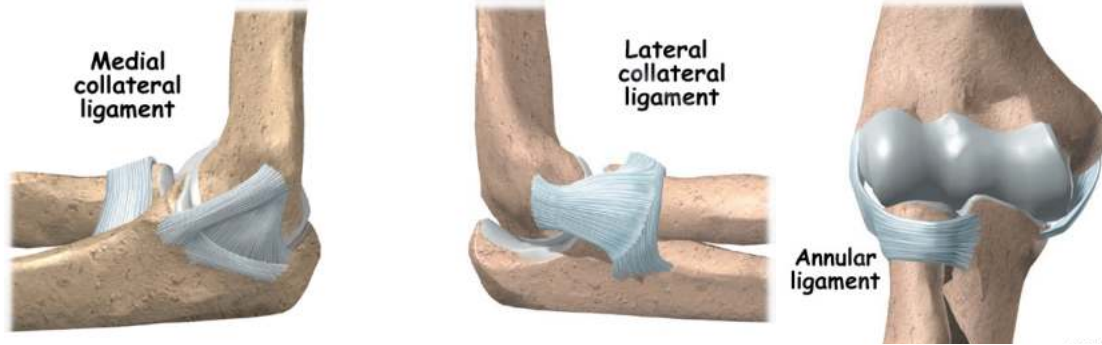
Elbow arthroscopy is a minimally invasive surgical technique that allows your surgeon to evaluate and in some cases treat certain elbow conditions. During the procedure your surgeon will make small incisions in your elbow called portals. A tiny camera is then placed in the portals and the interior space of the elbow can be visualized, problems can be identified and then properly treated.

## Anatomy of the Elbow

The elbow is a hinged joint made up of three bones, the humerus, ulna, and radius. The ends of the bones are covered with cartilage. Cartilage has a rubbery consistency that allows the joints to slide easily against one another and absorb shock. The bones are held together with ligaments that form the joint capsule. The joint capsule is a fluid filled sac that surrounds and lubricates the joint.



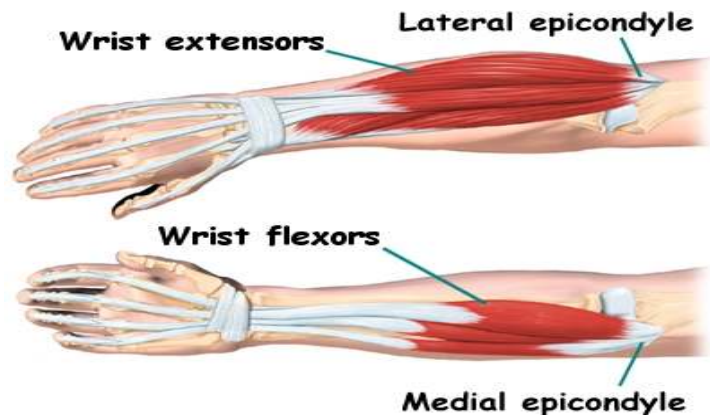
The important ligaments of the elbow are the medial collateral ligament (on the inside of the elbow) and the lateral collateral ligament (on the outside of the elbow.) Together these ligaments provide the main source of stability for the elbow, holding the humerus and the ulna tightly together. A third ligament, the annular ligament, holds the radial head tight against the radius.



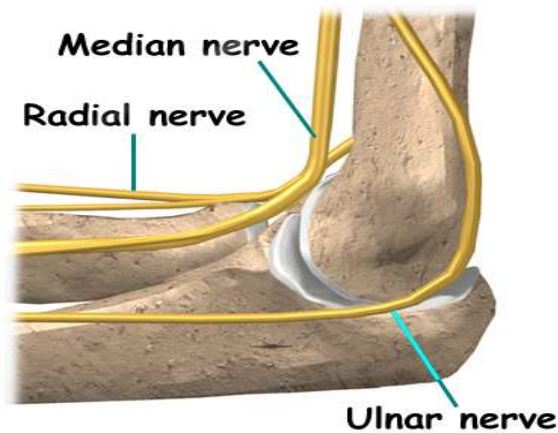
There are tendons in your elbow that attach muscle to bone. The important tendons of the elbow are the biceps tendon, which is attached the biceps muscle on the front of your arm, and the triceps tendon, which attaches the triceps muscle on the back of your arm.



The muscles in your forearm cross the elbow and attach to the humerus. The outside (lateral) bump just above the elbow is called the lateral epicondyle. Most of the muscles that straighten the fingers and wrist come together and attach to the medial epicondyle, or the bump on the inside of your arm just above the elbow. These two tendons are important to understand because they are common locations of tendonitis.



All of the nerves that travel down the arm pass across the elbow. Three main nerves begin together at the shoulder the radial nerve, the ulnar nerve and the median nerve. These nerves are responsible for signaling your muscles to work and to also relay sensations such as touch, pain and temperature.



#### **Common Conditions that Require Elbow Arthroscopy**

- *Elbow Contractures*- commonly known as elbow stiffness. Joint contractures commonly result from trauma/injury, often with damage to the ligaments or fractures of the bone. The result is a limitation of elbow bending or straightening, motion, and pain. Arthroscopy can help by releasing tight structures and scar tissue, usually significantly improving movement.
- *Elbow Debridement for Loose Bodies*- Loose bodies are fragments of bone and/or cartilage that break free within the joint. There are multiple potential causes of loose bodies. These fragments can move or float within the joint causing pain, popping, and clicking and sometimes locking symptoms. Arthroscopy can safely remove these fragments.
- *Elbow Arthritis*- Arthritis in the elbow is usually osteoarthritis, or wear and tear arthritis. This problem leads to cartilage thinning and bone spur formation. Over time the bone spurs grow and begin to block movement leading to stiffness and pain. Occasionally bone spurs break off forming loose bodies. Arthroscopy can help patients with osteoarthritis by removing bone spurs and loose bodies and releasing scar tissue.
- *Lateral Epicondylitis*- This condition, commonly known as tennis elbow is a painful tendonitis of the group of muscles on the outer part of the elbow. If nonoperative treatment fails, arthroscopy can be helpful to debride or remove damaged tendon and help stimulate healing.
- *Osteochondritis Dissecans*- This condition sometimes called OCD for short, has to do with lack of blood supply to the one region of the humerus bone call the capitellum. This problem usually develops in older children and teenagers, especially those that participate in throwing sports or sports with upper body weight bearing. In some cases, a region of the bone will die and begin to collapse or crumble. Arthroscopy can effectively remove or debride these lesions and in some cases stimulate healing.

## **Preoperative Planning**

Depending on the location of your surgery it may be required to have preoperative testing. In some cases blood work, EKG (heart tracing), or a chest X-ray may be needed. A chest x-ray is only done if you have a lung condition or a history of cigarette smoking. If any of these tests are needed they will be scheduled for you and will be done during pre-testing when you meet with the anesthesia staff. If it has been some time since you have seen your primary care physician and you have a lot of medical problems, it would be best that you see your medical doctor before your pre-test date.

You will arrive at the hospital approximately two hours before your scheduled surgery time. Procedures are performed on a “to follow” basis. Occasionally, a procedure scheduled ahead of yours may take longer than expected, so there may be some delay before your surgery. Regardless, it is important that you arrive on time. Sometimes an earlier procedure will cancel and we run ahead of schedule. You should not have anything to eat or drink after midnight the night before surgery. You may be advised to take some of your medications with a sip of water only. The anesthesia staff will discuss this with you at the time of your pre-testing. Upon arrival to the hospital you will go through a check-in process. At the appropriate time you will be brought into a pre-operative holding area. At this point the nurse will see you, review your records, and an IV will be started. A member of the anesthesia team will meet with you to discuss any anesthesia concerns and anesthetic options. Your surgery will be performed under general anesthesia (you will go to sleep.) In addition, the anesthesiologist may recommend a regional block if they think that you are a good candidate. This involves an injection of local anesthetic (numbing medicine) or placement of a catheter near the nerves at the base of the neck. These blocks are generally recommended to help control your pain following surgery. The anesthesiologist will discuss the risks of the block and the decision to perform this is a mutual decision between the patient and the anesthesiologist.

You can anticipate that your surgery will last approximately 1 ½ to 2 ½ hours, although this varies depending on the type of elbow arthroscopy for which you are scheduled. If you have family members with you they will wait for you in the waiting room. Your doctor will speak with them immediately after your surgical procedure to let them know that you are finished. During your surgery, family members should plan on remaining in waiting area in order to be accessible at the completion of the procedure, if your family member is not available when the doctor calls there may not be another opportunity to speak with the doctor that day. Belongings will be stored in a locker in the pre-operative area.

When you wake from surgery you will be located in the post-operative recovery room. Unfortunately family members cannot be present with you at this time as there are many other patients and many nurses in this area. Once you have been stabilized and are comfortable family members will be invited to sit with you while you continue recovering from anesthesia. Criteria for discharge include that your pain is under control and that you are eating, drinking, and able to walk to the bathroom with minimal assistance. You will have a dressing or a hard splint on your elbow and your arm will be immobilized in a sling.

## **Risks and Complications**

The list below includes some of the common possible side effects from this surgery. Fortunately complications are very rare in your doctor's practice. Please note that this list includes some, but not all, of the possible side effects or complications. Complications may include complications from anesthesia, infection (very rare with arthroscopic procedures), nerve injury (rare), blood vessel injury (extremely rare), bleeding (extremely rare), elbow stiffness, failure of repair, failure of the anchors or sutures, failure to improve your symptoms as much as you had hoped, a blood clot can form in your arms or legs and very rarely travel to your lungs, complex regional pain syndrome (a painful condition involving the arm). Although these risks remain small, the risks of nerve injury and infection are higher with elbow arthroscopy compared to other joints such as the shoulder and knee. For this reason, the use of antibiotics following surgery and proper dressing management are very important.

## **Postoperative Care**

1. Sling instructions. The sling is used for your comfort and to assist with elevating the arm. Sometimes with elbow surgery it is difficult to wear the sling or you may not be comfortable in a sling. It is important to elevate your hand above your elbow and your elbow above your shoulder.
2. Diet. We recommend that you eat a light diet the evening of surgery and the next day but you may resume eating a regular diet as soon as you tolerate it.
3. Pain control. When you are discharged from the hospital you will be given a prescription for pain medicine. You may take this medicine as prescribed. You will be given the option to purchase a cold pack machine. This machine has a sleeve which is attached to an ice cooler. You place ice and some water in the cooler and plug this in to a regular outlet. This circulates cold water through the shoulder sleeve providing relief of pain and swelling after surgery. You should keep ice on the elbow frequently for the first 48-72 hours after surgery. We recommend icing 2-3 times per day for the first week especially before sleep.
4. Wound care. You will be given instructions on how to care for your elbow dressing. In some cases two dressings are applied to the elbow and you will be instructed to take the outer layer off after a day or two. In most cases the dressing you have should remain in place until your next office visit. The dressing has a special antibiotic layer that decreases the risk of infection. The dressing should be kept clean and dry. It is very important to follow the discharge instructions. If you have questions please call the office. You may not get in a hot tub or pool and immerse the incisions underwater for six weeks but you may get in the shower and let the water run over them once the dressing has been removed. Pat the incisions dry afterwards, and place band-aids over the incisions. There

is no need to place any ointment over the incisions. It is better to keep them dry. If you notice drainage, swelling or increased pain 5 days after surgery please call the office. Redness around the incision is very common and should not be a concern unless it is associated with drainage at any point after the dressing is removed, or with redness spreading away from the incision or fevers.

Often after elbow arthroscopy there is a significant amount of bruising and swelling in the elbow, forearm and hand. This is related to minor internal bleeding and is normal. It may take several weeks for all of the bruising and swelling to resolve.

5. Sleep. It is often very difficult to sleep in the week or two following surgery. The surgery itself may interfere with your sleep-wake cycle. You will likely be most comfortable with your arm propped on pillows. This often helps with the pain.
6. Driving. Operating a motor vehicle may be difficult due to your inability to use your operative arm. If you should have an accident or get pulled over while wearing a sling or splint, the authorities may consider that driving while impaired. The decision to drive is based on your comfort level with driving essentially one-handed. If you need to drive you should wait at least until you have seen your doctor at the first postoperative visit. Once you are out of your sling and/or splint you may drive once you feel safe operating a vehicle. No one should operate a motor vehicle while taking narcotic medications. Please limit car driving until you are off narcotics.
7. Physical therapy. The decision to prescribe physical therapy and when to start these activities is made on a case by case basis. This will be discussed with you on your first postoperative visit. It is rare that your surgeon will prescribe therapy before your first postoperative visit. It is important that you start to move the elbow after 48 hours. Because the dressing is soft, movement is possible with minimal restriction. You may be instructed by your surgeon/recovery room nurse to begin gentle range of motion exercises on the day of surgery. These will be self directed exercises that you start on your own. Most patients are encouraged to stretch their elbow 3 or 4 times per day. The recommended motions include stretching the elbow straight, then bending the elbow, followed by turning the palm up towards the ceiling and then down toward the floor with the elbow bent. Each motion should be repeated 10 times. You may use the opposite arm to assist stretching in each direction. These motions sometimes cause pain, but it is OK to push into the pain a little to prevent the elbow from becoming stiff after surgery.

## **Medications to Avoid Before and After Surgery**

Medications that increase the chances that you will bleed excessively after surgery include:

1. Aspirin, enteric-coated, baby, and plain aspirin or any other product containing aspirin. In some cases, we may recommend stopping your aspirin 1 week before surgery. In others cases, low-dose aspirin may be continued based on your medical condition. Please discuss with your surgeon.
2. Coumadin – discuss this with the prescriber as to the best time to stop this medication before surgery.
3. Celebrex- stop 1 week prior to surgery.
4. Ibuprofen (Advil, Motrin) - stop 1 week prior to surgery
5. Naprosyn (Aleve) - stop 1 week prior to surgery
6. Plavix – discuss this with the prescriber as to the best time to stop this medication before surgery
7. Some over-the-counter herbs can also effect bleeding. These include chondroitin, dan shen, feverfew, garlic tablets, ginger tablets, ginkgo, ginseng, and quilinggao and fish oil.

## **Follow Up Appointment**

A follow up appointment is usually scheduled at the time that surgery is scheduled. Patients are seen in the office 10-14 days after surgery for suture removal. If you have not been scheduled for a follow up, please call the office to set up an appointment. We will then schedule your second follow up appointment for approximately 3 to 4 weeks thereafter.

## **Emergencies**

Signs of an emergent situation include increasing redness, swelling, and significant drainage from the incision site, a fever greater than 101.5, inability to tolerate food and fluids after surgery. In rare cases, temporary breathing difficulties can occur in patients who have had a regional block or a pain catheter. If you find that you have any of these situations, it is advisable that you call our office or the hospital. If the office is closed please call the respective Beaumont Orthopaedic Unit so that emergent care can be initiated for you.

## **Contact Information**

### **Beaumont Orthopaedic Associates - Taylor**

1000 Telegraph Rd.  
Taylor, MI 48180  
Phone: (313) 887-6000  
Fax: (313) 887-6005

### **Beaumont Orthopaedic Institute - Royal Oak**

3535 West 13 Mile Rd. Suite 742  
Royal Oak, MI 48073  
Phone: (248) 551-9100  
Fax: (248) 551-9131

### **Beaumont Premier Orthopedics – St. Clair Shores**

25631 Little Mack Suite 102  
St. Clair Shores, MI 48081  
Phone: (586) 443-2317  
Fax: (586) 443-2318

### **Beaumont Taylor Orthopaedic Unit**

(313) 375-7200

### **Beaumont Royal Oak Orthopaedic Unit**

(248) 544-6921

### **Beaumont Grosse Pointe Orthopaedic Unit**

(313) 473-1000