## WIDE AWAKE HAND SURGERY

There are two key components to wide awake hand surgery. First, the area of the hand to be operated on must be anesthetized. The ability to make an area numb for surgery has been around for decades. There are many different medicines that can make the tissues numb, such as Lidocaine and Novocaine. The medicines prevent the nerve from sending a pain signal back to the brain and can last from an hour up to 24 hours in some cases.

The second key component to successful wide awake hand surgery is for the surgeon to be able to see the anatomy clearly so the operation can be done safely. Traditionally the way to achieve a clear view of the structures, or sometimes called a bloodless field, was to inflate a tourniquet to prevent bleeding during the surgery. This is very effective, but as you may remember from the last time you had your blood pressure taken, a tight blood pressure cuff, or tourniquet can be uncomfortable. Thus, some patients need to be asleep simply to not feel the pain of the tourniquet. However, a successful bloodless field needed for intricate hand surgery can be achieved by using the lidocaine or numbing agent with the key additive epinephrine or adrenaline. Epinephrine is a compound your body makes naturally, but when injected in the appropriate concentrations it can cause the blood vessels to clamp down in the area of the surgery. The epinephrine thus reduces bleeding substantially and can actually eliminate the need for a tourniquet. Thus patients receiving an injection of the numbing agent with epinephrine can safely have surgery on their hand with no pain from the incisions and no pain from the tourniquet.

Some of the added benefits of wide awake hand surgery are that patients need minimal or no preoperative testing, like an EKG or blood work. Some patients can even avoid the intravenous or IV line placement prior to surgery. This can be significant way to save costs associated with the surgery.

Patients also avoid the side effects, such as upset stomach or amnesia associated with the medicines typically used to sedate patients. Patients can also go home almost immediately after surgery. Additionally, in that patients are awake during the surgery, the patient and surgeon can discuss the steps of the surgery as it is happening and importantly discuss the important instructions on how to care for the hand after the surgery. The patient can ask questions during the surgery so they feel confident about what to do next and what to expect next. The patient and surgeon truly work as a team to maximize the patient's results.

Many procedures can be done in this manner including most basic hand surgeries such as carpal tunnel surgery, trigger finger surgery, some tendon injuries and even fractures, and arthritic conditions of the fingers and hand.

