

Anesthesia at the Outpatient Surgery Center (OSC)

The Massachusetts General Hospital Outpatient Surgery Center Anesthesia Department is made up of Anesthesiologists, Certified Registered Nurse Anesthetists and a rotating senior Mass General anesthesia resident. Our goal at the OSC is to make your anesthetic and surgical experience the safest it can be and to discharge you home in the most comfortable manner possible.

During your pre-operative visit with your surgeon, you may discuss the different anesthetic options for your surgery and you will be instructed to fill out your Patient Gateway questionnaire online. This needs to be done prior to your pre-op nursing and anesthesia evaluations. Once Patient Gateway is completed and your surgery is scheduled, you will receive a phone call from a nurse. If a regional anesthesia, also known as a nerve block, is an option for your surgery, you will receive a call from an anesthesiologist.

There are several different options available for orthopaedic surgical procedures including general anesthesia, MAC (local anesthesia with IV sedation), IV regional anesthesia (Bier Block), regional anesthesia (nerve block) or a combination of the options. The type of anesthesia you will receive for your surgical procedure will be dependent on the several factors: the particular surgical procedure, the surgeon's preference for that procedure, your medical condition, the anesthesiologist's recommendation and the patient's preference.

Types of Anesthesia

General Anesthesia

- General Anesthesia is an anesthetic technique in which the patient's body is cannot feel surgical pain, and the patient is totally unconscious. It may be used as the primary anesthetic or in conjunction with a regional anesthesia based on the surgeon or the patient's preference.

Sedation

- At the OSC, sedation plays an important role in making your anesthetic and surgical experience less stressful. The anesthesiologist will use IV sedation either during the performance of a regional block or in the OR during the surgical procedure.

Regional Anesthesia

- Regional Anesthesia, also known as a nerve block, is an anesthetic technique in which a part or area of the patient's body is made numb (put to sleep) using a local anesthetic or numbing medicine. Because orthopedic surgeries involve the extremities, (e.g. shoulder to hand or hip to foot) regional anesthesia can be a good anesthetic option.
 - **Ankle Block**
 - The ankle block is a regional anesthetic technique used in conjunction with sedation or a light general anesthesia for surgeries of the foot.
 - **Axillary Block**
 - The axillary block is a regional anesthetic technique used in conjunction with sedation or a light general anesthesia for surgeries of the elbow, forearm, wrist and hand.
 - **Bier Block**
 - The Bier Block or IV Regional is a regional anesthetic technique used for surgery of the forearm, wrist and hand. Unlike the other regional techniques the Bier block or IV regional is a short lasting regional technique and is performed in the operating room itself.
 - **Femoral Nerve Block**
 - The femoral nerve block is a regional anesthetic technique used in conjunction with general anesthesia for ACL reconstruction surgery, tibial osteotomies and other more painful complex surgeries involving the knee joint.
 - **Infraclavicular Block**
 - The infraclavicular block is a regional anesthetic technique used in conjunction with sedation or a light general anesthesia for surgeries of the upper arm, elbow, forearm, wrist and hand.
 - **Interscalene Block**
 - The interscalene block is a regional anesthetic technique usually used in conjunction with sedation or a light general anesthesia for surgeries of the shoulder and upper arm.
 - **Popliteal Block**
 - The popliteal nerve block is a regional anesthetic technique used in conjunction with sedation or a light general anesthesia for surgery of the lower leg, ankle and foot.
 - **Supraclavicular Block**
 - The supraclavicular block is a regional anesthetic technique usually used in conjunction with a light general anesthesia for surgeries of the upper arm, elbow, forearm, wrist and hand.
 - **Adductor Canal/Saphenous Nerve Block**
 - The adductor canal/saphenous nerve block is a regional anesthetic technique used in conjunction with general anesthesia for ACL reconstruction surgery, tibial osteotomies and other more painful complex surgeries involving the knee joint.

General Anesthesia

General Anesthesia is an anesthetic technique in which the patient's body cannot feel surgical pain, and the patient is totally unconscious. It may be used as the primary anesthetic or in conjunction with a regional anesthesia. This is based on the surgeon or the patient's preference.

On arrival to the prep area at the OSC you will meet the members of the anesthesia care team, a certified registered nurse anesthetist (CRNA) and the attending anesthesiologist. The risks and benefits of the procedure will be discussed with you before you sign your consent. Once the surgeon, operating room (OR) and OR team are ready, you will then be transferred to the OR.

You will receive some sedation through your IV prior to your transfer to the OR, which will help you. Once in the OR, you will be asked to move onto the OR table, and then a few monitors will be attached: a blood pressure cuff, a light sensor to measure your blood oxygen level will be attached to your finger and EKG leads will be placed on your chest.

The Anesthesia care team will ask you to take a couple of deep breaths of oxygen. They will then place medication into your IV to start the general anesthesia. You may feel a warm burning sensation at the IV site when this medicine is injected, which is normal. Once you are asleep, an airway will be placed into the back of your mouth, which moves your tongue aside so you can breathe on your own, and in rare instances a breathing tube will be placed in your windpipe. The general anesthesia will then be maintained with a mixture of anesthetic gases you breathe into your lungs and IV pain medication. Your vital signs will be monitored continually throughout the surgery.

Once the surgical procedure is complete, the airway or the breathing tube will be removed and the anesthetic gases shut off. As you breathe off the anesthetic gases, you will gradually wake up.

You will be transferred to the Post-Anesthesia Care Unit (PACU) and your care will be transferred to the PACU nurses. What patients remember of the experience can vary. You may or may not remember waking up in the OR, or you may not even recall your PACU stay due to the amnestic effects of the anesthetic medications.

As with any anesthesia, there are inherent risks associated with general anesthesia. Fortunately, serious complications are extremely rare. Prior to signing your consent, the anesthesiologist will ask if you understand the common and uncommon risks, side effects and possible complications of general anesthesia listed on the consent form. He or she will also answer any questions you may have.

IV Sedation

With surgery under regional anesthesia or local anesthesia, patients are often concerned about what they will feel or hear while receiving a regional anesthetic block or in the operating room (OR) during surgery.

At the OSC, sedation plays a significant role in making your anesthetic and surgical experience as easy and comfortable as possible. The anesthesiologist will use IV sedation either while administering a regional block or in the OR during the surgical procedure.

When the anesthesiologist is administering a regional anesthetic block, he or she will also give IV medications that relieve anxiety and any minor discomfort before the block. Patients usually are unaware that they have experienced an anesthetic procedure. Once patients understand that they will not feel discomfort during the placement of the regional anesthetic block, most of their anxiety is eliminated.

Once in the OR and during the surgical procedure, sedation also plays a major role. There is a broad spectrum of sedation you could receive in the OR. This spectrum ranges from "light sedation" (aware of what is going but without anxiety) to "heavy sedation" (totally unaware – like sleeping at home). In addition, the level of sedation experienced varies from patient to patient. Some patients may remember every detail of the surgery, while others may not remember anything until they wake up in the recovery room. There are many factors that determine how awake or asleep the patient is during the surgery, including the type of surgery, the patient's position, medical condition and the comfort level of the surgeon and anesthesiologist. In the end, it is the joint decision between the patient, surgeon and the attending anesthesiologist as to how to manage the patient's sedation and awareness during regional anesthesia in order to provide the safest anesthetic and surgical experience possible.

Regional Anesthesia

Regional Anesthesia, also known as a nerve block, is an anesthetic technique in which a part or area of the patient's body is made numb (put to sleep) using a local anesthetic or numbing medicine. Because orthopedic surgeries involve the extremities, (e.g. shoulder to hand or hip to foot), regional anesthesia can be a good anesthetic option. This type of surgery may also be associated with significant post-operative pain. Regional anesthesia can also be used to provide excellent long lasting post-operative pain relief, in addition to providing intra-operative pain relief, making it very appealing for use with outpatient orthopedic surgical procedures. Many of our surgeons will discuss regional anesthesia with you during your pre-op visit.

If regional anesthesia is an option for your surgical procedure, you will receive a pre-operative phone call from an anesthesiologist. He/she will review your medical history to determine if you are a candidate for a regional anesthetic technique/nerve block. The anesthesiologist will also explain how the nerve block is performed, the risks and benefits of the nerve block as well as what to expect from the block. This will also give you an opportunity to address any questions or concerns you may have about regional anesthesia.

There are several regional options available depending on the type of surgery, location of the surgery, duration of surgery, amount of expected post-operative pain and surgeon preference.

Regional anesthesia can be divided into two basic categories.

1. **Peripheral nerve blocks** in which local anesthesia or numbing medicine is placed next to the nerves that supply the extremity. These blocks provide both good intra-operative pain relief and occasionally up to 24 hours of post-operative pain control. These blocks are used primarily for longer surgical procedures and ones in which a large amount of post-operative pain is expected.
2. **Bier block/IV regional** is a short-acting regional anesthetic technique in which the local anesthetic is injected into a vein in the extremity. The bier block/IV regional provides good intra-operative pain relief. However unlike the peripheral nerve block, it does not provide post-operative pain relief. This technique is used for shorter procedures in which little post-operative pain is anticipated.

Combined with the regional anesthesia, the patient receives either sedation through an IV to provide different levels of relaxation and sedation, or a light general anesthetic depending on the patient and surgeon preference.

Patients can react differently to sedation and regional anesthetics. Therefore, from the moment the patient receives his/her block until the time the patient is comfortable in the recovery room, a member of the anesthesia care team will be caring for the patient the entire time. This is done to ensure the anesthetic is working perfectly, and the patient is calm, comfortable and stable.

As with any anesthetic, there are inherent risks associated with regional anesthesia. Fortunately, serious complications are extremely rare. Prior to signing your consent, the anesthesiologist will ask you if you understand the common and uncommon risks, side effects and possible complications of the regional anesthesia technique listed on the consent form. He or she will also answer any questions you may have.

Ankle Block

The ankle block is a regional anesthetic technique used in conjunction with sedation or a light general anesthesia for surgeries of the foot. It is a safe and effective block that provides excellent surgical anesthesia and post-operative pain control.

During a preoperative call with an anesthesiologist, you will discuss the procedure, as well as its risks and benefits. On arrival to the OSC prep area, you will be asked to sign a consent for the procedure. You will then be attached to a few monitors: a blood pressure cuff, a light sensor to measure your blood oxygen level will be attached to your finger and EKG leads will be placed on your chest. You will receive some sedation through your IV prior to placement of the block, which both relaxes you and will likely cause you to have little or no recollection of the block placement.

Next, the anesthesiologist will cleanse your ankle and foot on the operative side with an antiseptic solution. He or she will use both anatomical landmarks and an ultrasound machine to find the desired location for the ankle block.

Once the best locations are found, the anesthesiologist will numb the skin with some local anesthetic. Next, a needle will be inserted, and using an ultrasound to guide the needle, your anesthesiologist will find the proper locations near the nerves. The ankle block requires a series of 3 to 5 injections of a long acting Novocain-like medicine around the ankle just below the skin. Placing the block usually only takes a few minutes.

After the block is in place, it takes approximately 15-20 minutes to work. You will notice your foot gradually becoming numb. Once in the operating room, you will again be attached to monitors and positioned by the surgeon. You will receive relatively deep levels of sedation or a light general anesthetic because it allows for better blood pressure control, less bleeding and ultimately more patient comfort.

After the surgery and transport to the recovery room, the sedation or general anesthesia will begin to wear off. You will notice that you will have little or no pain in your foot.

The numbness and weakness from the block should last from 6-18 hours. As it begins to wear off, you should start the pain medicine that was prescribed by your surgeon.

Axillary Block

The axillary block is a regional anesthetic technique used in conjunction with sedation or a light general anesthesia for surgeries of the elbow, forearm, wrist and hand. It is a safe and effective block that provides excellent surgical anesthesia and post-operative pain control.

During a preoperative call with an anesthesiologist, you will discuss the procedure as well as its risks and benefits. On arrival to the OSC prep area, you will be asked to sign a consent for the procedure. You will then be attached to a few monitors: a blood pressure cuff, a light sensor to measure your blood oxygen level will be attached to your finger and EKG leads will be placed on your chest. You will receive some sedation through your IV prior to placement of the block, which both relaxes you and will likely cause you to have little or no recollection of the block placement.

Next, the anesthesiologist will cleanse your upper chest, axilla (armpit) and upper arm region on the operative side with an antiseptic solution. He or she will use both anatomical landmarks and an ultrasound machine to find the desired location for the axillary nerve block near the collarbone/shoulder region.

Once the best location is found, the anesthesiologist will numb the skin with some local anesthetic. Next, a needle will be inserted, and using an ultrasound to guide the needle, your anesthesiologist will find the proper locations near the nerves. In addition to the ultrasound, occasionally, a process called nerve stimulation will be used to assist in verifying the location of the nerves to your arm/hand and optimizing needle placement. If nerve stimulation is used, a very small amount of electrical current will be put through the needle and you will feel the sensation of involuntary twitches or movements in your arm and hand. Do not try to stop these movements because they tell the anesthesiologist if he/she is in the right location with the needle. When the location and/or response is optimal, the anesthesiologist will inject the long acting Novocain-like medicine in multiple small doses which will numb your arm and hand. Placing the block usually only takes a few minutes.

The block takes approximately 15-20 minutes to work. You will notice your arm and hand becoming gradually more weak and numb. Once in the operating room, you will once again be attached to monitors and positioned by the surgeon. You will receive relatively deep levels of sedation or a light general anesthetic because it allows for better blood pressure control, less bleeding and ultimately more patient comfort.

After the surgery and transport to the recovery room, the sedation or general anesthesia will begin to wear off. You may notice a few things. First you will have little or no pain, and secondly you will not be able to move or feel your arm and hand.

The numbness and weakness from the block should last from 6-18 hours. As it begins to wear off, you should start the pain medicine that was prescribed by your surgeon.

Bier Block/IV Regional

The Bier Block or IV Regional is a regional anesthetic technique used for surgery of the forearm, wrist and hand. It is an effective block that provides excellent surgical anesthesia for short and less painful surgeries. Unlike the other regional techniques, the Bier block or IV regional is a short-lasting regional technique and is performed in the operating room (OR) itself.

When you arrive at the prep area of the OSC, you will discuss the regional procedure as well as the risks and benefits. Your questions will be answered at that time before you sign your consent. An IV catheter will be placed on the back of the hand to be operated on. Once the surgeon, OR and OR team are ready, you will be transferred to the OR.

You will be attached to a few monitors: a blood pressure cuff, a light sensor to measure your blood oxygen level will be attached to your finger and EKG leads will be placed on your chest. You will receive some sedation through your IV prior to placement of the block, which will both relax you and likely cause you to have little or no recollection of the block placement.

Next, the anesthetist will position you for the block. He or she will ask you to remain lying on your back. A deflated tourniquet will then be placed around the operative side upper arm or forearm. An assistant will hold the hand of the operative side above you. A large rubber band will be wrapped from your hand to the tourniquet forcing the blood out of your arm. Then the tourniquet will be inflated. This prevents blood from coming back into the arm and also prevents local anesthetic from leaving the arm during the surgery. Once it is confirmed that the tourniquet is functioning properly, Lidocaine - the local anesthetic - will be injected into the IV on the back of the hand. After the injection of local anesthetic, the IV catheter will be removed.

The block takes about 5 to 10 minutes to work. As the block begins to work, you may experience a short-lived burning or warm sensation in your arm and hand. Then your arm, wrist and hand will become numb. You will receive additional IV sedation once the block is in, which will make you more relaxed and you most likely will not recall the surgery. The surgeon may place additional local anesthetic in the incision to help with post-operative pain.

Upon completion of the surgery, the tourniquet is deflated and the blood flow returns to your arm and hand washing out the Lidocaine. Normal feelings and movement will return very shortly thereafter.

After the surgery, you will be transported to the recovery room. The block will have worn off, and the sedation will begin to wear off too. If you need it, you will receive supplemental post-operative pain medicine in the recovery room.

Femoral Nerve Block

The femoral nerve block is a regional anesthetic technique used in conjunction with general anesthesia for ACL reconstruction surgery, tibial osteotomies and other more painful complex surgeries involving the knee joint. It is a safe and effective block that provides excellent post-operative pain control for the inside and front of the knee.

During a preoperative call with an anesthesiologist, you will discuss the procedure, as well as its risks and benefits. On arrival to the OSC prep area, you will be asked to sign a consent form for the procedure. You will then be attached to a few monitors: a blood pressure cuff, a light sensor to measure your blood oxygen level will be attached to your finger and EKG leads will be placed on your chest. You will receive some sedation through your IV prior to placement of the block, which both relaxes you and likely cause you to have little or no recollection of the block placement.

Next, while maintaining modesty, the anesthesiologist will cleanse your groin region on the operative side with an antiseptic solution. He or she will use both anatomical landmarks and an ultrasound machine to find the desired location for the femoral nerve block in the groin region.

Once the best location is found, the anesthesiologist will numb the skin with local anesthetic and insert a needle through your skin. Your anesthesiologist will use ultrasound to guide the needle to the proper location near the nerve. In addition to the ultrasound, occasionally, a process called nerve stimulation, will be used to assist verifying the location of the nerve to your thigh and knee. If nerve stimulation is used, a very small amount of electrical current will be put through the needle and you will feel the sensation of involuntary twitches or movements in your upper leg and kneecap. Do not try to stop these movements because they tell the anesthesiologist if s/he has found the correct location with the needle. When the location and/or response is optimal, the anesthesiologist will inject the long acting Novocain-like medicine in multiple small doses which will numb the front of your thigh and knee. This procedure takes only a few minutes to perform.

The block takes approximately 15-20 minutes to work. You will notice upper leg weakness and numbness over your thigh area. Once in the operating room, you will once again be attached to monitors and positioned by the surgeon. You will receive a light general anesthetic, in addition to the femoral nerve block as your anesthetic, because the femoral nerve block does not numb the back of the knee.

After the surgery and transport to the recovery room, the general anesthesia will begin to wear off. You will have little or no pain in the front of your leg or knee. However you will probably have some discomfort behind your knee. That is expected. You will receive pain medicine in the recovery room as you need it.

The numbness and weakness from the block usually lasts from 10-24 hours and occasionally greater than 24 hours. As it begins to wear off, you should start the pain medicine prescribed by your surgeon.

Infraclavicular Block

The infraclavicular block is a regional anesthetic technique used in conjunction with sedation or a light general anesthesia for surgeries of the upper arm, elbow, forearm, wrist and hand. It is a safe and effective block that provides excellent surgical anesthesia and post-operative pain control.

During a preoperative call with an anesthesiologist, you will discuss the procedure, as well as its risks and benefits. On arrival to the OSC prep area, you will be asked to sign a consent form for the procedure. You will then be attached to a few monitors: a blood pressure cuff, a light sensor to measure your blood oxygen level will be attached to your finger and EKG leads will be placed on your chest. You will receive some sedation through your IV prior to placement of the block, which both relaxes you and likely cause you to have little or no recollection of the block placement.

Next, the anesthesiologist will cleanse your upper chest, collarbone and shoulder region on the operative side with an antiseptic solution. He or she will use both anatomical landmarks and an ultrasound machine to find the desired location for the infraclavicular nerve block near the collarbone/shoulder region.

Once the best location is found, the anesthesiologist will numb the skin with some local anesthetic and insert a needle through the skin. Your anesthesiologist will utilize ultrasound to guide the needle to the proper location near the nerves. In addition to the ultrasound, occasionally, a process called nerve stimulation will be used to assist verifying the location of the nerves to your arm/hand and optimizing needle placement. If nerve stimulation is used, a very small amount of electrical current will be put through the needle and you will feel the sensation of involuntary twitches or movements in your arm and hand. Do not try to stop these movements because they tell the anesthesiologist if s/he is in the right location with the needle. When the location and/or response is optimal, the anesthesiologist will inject the long acting Novocain-like medicine in multiple small doses, which will numb your arm and hand. This procedure takes only a few minutes to perform.

The block takes approximately 15-20 minutes to work. You will notice your arm and hand becoming gradually more weak and numb. Once in the operating room, you will once again be attached to monitors and positioned by the surgeon. You will receive relatively deep levels of sedation or a light general anesthetic because it allows for better blood pressure control and ultimately more patient comfort.

After the surgery and transport to the recovery room, the sedation or general anesthesia will begin to wear off. You may notice a few things. You will have little or no pain, and you will not be able to move or feel your arm and hand.

The numbness and weakness from the block should last from 6-18 hours. As it begins to wear off, you should start the pain medicine prescribed by your surgeon.

Interscalene Block

The interscalene block is a regional anesthetic technique usually used in conjunction with sedation or a light general anesthesia for surgeries of the shoulder and upper arm. It is a safe and effective block that provides excellent surgical anesthesia and post-operative pain control.

During a preoperative call with an anesthesiologist, you will discuss the procedure, as well as its risks and benefits. On arrival to the OSC prep area, you will be asked to sign a consent form for the procedure. You will be attached to a few monitors: a blood pressure cuff, a light sensor to measure your blood oxygen level will be attached to your finger and EKG leads will be placed on your chest. You will receive sedation through your IV prior to placement of the block, which will both relax you and likely cause you to have little or no recollection of the block placement.

Next, the anesthesiologist will cleanse your neck on the operative side with an antiseptic solution. He or she will use both anatomical landmarks and an ultrasound machine to find the desired location for the interscalene block an inch or two above the collarbone on your neck.

Once the best location is found, the anesthesiologist will numb the skin with local anesthetic and insert a needle through the skin. Your anesthesiologist will utilize ultrasound to guide the needle to the proper location near the nerves. In addition to the ultrasound, occasionally a process called nerve stimulation will be used to assist verifying the location of the nerves to your shoulder/upper arm and optimizing needle placement. If nerve stimulation is used, a very small amount of electrical current will be put through the needle and you will feel the sensation of involuntary twitches or movements in your chest, shoulder or arm. Do not try to stop these movements – these are what tell the anesthesiologist if s/he is in the right location with the needle. When the location and/or response is optimal, the anesthesiologist will inject the long acting Novocain-like medicine in multiple small doses which will numb your shoulder and arm. This procedure takes only a few minutes to perform.

The block takes approximately 15-20 minutes to work. You will notice shoulder and arm weakness and numbness. Once in the operating room, you will once again be attached to monitors and positioned by the surgeon. You usually will receive a light general anesthetic because it allows for better blood pressure control and ultimately more patient comfort. Most of the shoulder surgeons prefer general anesthesia to prevent any patient movement during the surgery.

After the surgery and transport to the recovery room, the anesthesia will begin to wear off. You will have little or no pain. You will not be able to move or feel your shoulder, arm and sometimes your hand. Your voice may be hoarse and you may feel like you are not taking as deep a breath as you did before the surgery. These are normal and expected side effects from the interscalene block, and they are short lived.

The numbness from the block usually lasts from 10-18 hours. As it begins to wear off, you should start the pain medicine prescribed by your surgeon.

Poplietal Block

The popliteal nerve block is a regional anesthetic technique used in conjunction with sedation or a light general anesthesia for surgery of the lower leg, ankle and foot. It is a safe and effective block that provides excellent surgical anesthesia and post-operative pain control.

During a preoperative call with an anesthesiologist, you will discuss the procedure, as well as its risks and benefits. On arrival to the OSC prep area, you will be asked to sign a consent form for the procedure. You will be attached to a few monitors: a blood pressure cuff, a light sensor to measure your blood oxygen level will be attached to your finger and EKG leads will be placed on your chest. You will receive sedation through your IV prior to placement of the block, which will relax you and likely cause you to have little or no recollection of the block placement.

Next, the anesthesiologist will position you for the block. You may be asked to remain lying on your back or to turn onto your side or your belly. He or she will cleanse either the side of your thigh or behind your knee with an antiseptic solution. He or she will use both anatomical landmarks and an ultrasound machine to find the desired location behind your knee for the popliteal block.

Once the best location is found, the anesthesiologist will numb the skin with local anesthetic and insert a needle through the skin. Your anesthesiologist will utilize ultrasound to guide the needle to the proper location near the nerve. In addition to the ultrasound, occasionally a process called nerve stimulation is used to assist in verifying the location of the nerves to your lower leg/ankle/foot and optimizing needle placement. If nerve stimulation is used, a very small amount of electrical current will be put through the needle and you will feel the sensation of involuntary twitches or movements in your foot. Do not try to stop these movements because they tell the anesthesiologist if s/he is in the right location with the needle. When the location and/or response is optimal, the anesthesiologist will inject the long acting Novocain-like medicine in multiple small doses which will numb your lower leg, ankle and foot. This procedure takes only a few minutes to perform.

Because the popliteal block only numbs-up approximately the outer 90% of the lower leg, ankle and foot, the anesthesiologist will also do a saphenous nerve block to numb up the remaining inner part of the lower leg, ankle or foot. While positioned lying on your back, the ultrasound machine will be used to locate the saphenous nerve. The lower inner thigh will be cleansed with an aseptic solution and the anesthesiologist will use the same method of locating the nerve with ultrasound. Alternatively, the anesthesiologist may make a simple injection under the skin near the kneecap or ankle. Both blocks take up to 30 minutes or more to work. You will notice foot and ankle numbness or weakness.

Once in the operating room, you will once again be attached to monitors and positioned by the surgeon. You will receive a relatively deep level of sedation or a light general anesthetic in addition to the popliteal nerve block. It allows for better blood pressure control and more patient comfort.

After the surgery and transport to the recovery room, the sedation or general anesthesia will begin to wear off. You will have little or no pain in the ankle or foot, and you will be unable to move your ankle or foot. You will receive pain medicine in the recovery room, if you need it.

The numbness and weakness from the block usually lasts from 6-18 hours. As it begins to wear off, you should start the pain medicine prescribed by your surgeon.

Supraclavicular Block

The supraclavicular block is a regional anesthetic technique usually used in conjunction with a light general anesthesia for surgeries of the upper arm, elbow, forearm, wrist and hand. It is a safe and effective block that provides excellent surgical anesthesia and post-operative pain control.

During a preoperative call with an anesthesiologist, you will discuss the procedure, as well as its risks and benefits. On arrival to the OSC prep area, you will be asked to sign a consent form for the procedure. You will be attached to a few monitors: a blood pressure cuff, a light sensor to measure your blood oxygen level will be attached to your finger and EKG leads will be placed on your chest. You will receive sedation through your IV prior to placement of the block, which will relax you and likely cause you to have little or no recollection of the block placement.

Next, the anesthesiologist will cleanse your upper chest, collarbone and lower neck region on the operative side with an antiseptic solution. He or she will use both anatomical landmarks and an ultrasound machine to find the desired location for the supraclavicular block near the collarbone/neck region.

Once the best location is found, the anesthesiologist will numb the skin with some local anesthetic and insert a needle through the skin. Your anesthesiologist will utilize ultrasound to guide the needle to the proper location near the nerves. In addition to the ultrasound, occasionally a process called nerve stimulation will be used to assist in verifying the location of the nerves to your arm/hand and optimizing needle placement. If nerve stimulation is used, a very small amount of electrical current will be put through the needle and you will feel the sensation of involuntary twitches or movements in your arm and hand. Do not try to stop these movements because they tell the anesthesiologist if s/he is in the right location with the needle. When the location and/or response is, optimal the anesthesiologist will inject the long acting Novocain-like medicine in multiple small doses which will numb your arm and hand. This procedure takes only a few minutes to perform.

The block takes approximately 15-20 minutes to work. You will notice your arm and hand becoming gradually more weak and numb. Once in the operating room, you will once again be attached to monitors and positioned by the surgeon. You will usually receive a light general anesthetic because it allows for better blood pressure control and more patient comfort. Most surgeons prefer general anesthesia to prevent any movement during the surgery.

After the surgery and transport to the recovery room, the sedation or general anesthesia will begin to wear off. You will have little or no pain, and you will not be able to move or feel your arm and hand.

The numbness and weakness from the block should last from 6-14 hours. As it begins to wear off, you should start the pain medicine prescribed by the surgeon.

Adductor Canal/Saphenous Nerve Block

The adductor canal/saphenous nerve block is a regional anesthetic technique used in conjunction with general anesthesia for ACL reconstruction surgery, tibial osteotomies and other more painful complex surgeries involving the knee joint. Some surgeons prefer it over a femoral nerve block because it is purely a sensory nerve block, providing good pain relief, and there is no weakness of the muscles associated with it. It is a safe and effective block that provides excellent post-operative pain control for the inside and front of the knee.

During a preoperative call with an anesthesiologist, you will discuss the procedure, as well as its risks and benefits. On arrival to the OSC prep area, you will be asked to sign a consent form for the procedure. You will be attached to a few monitors: a blood pressure cuff, a light sensor to measure your blood oxygen level will be attached to your finger and EKG leads will be placed on your chest. You will receive sedation through your IV prior to placement of the block, which will relax you and likely cause you to have little or no recollection of the block placement.

Next, while maintaining modesty, the anesthesiologist will cleanse the inner mid-thigh region on the operative side with an antiseptic solution. He or she will use both anatomical landmarks and an ultrasound machine to find the desired location for the adductor canal/saphenous nerve block in the groin region.

Once the best location is found, the anesthesiologist will numb the skin with local anesthetic. Next the anesthesiologist will slowly insert a needle the size of a paperclip through the skin. Your anesthesiologist will utilize ultrasound to guide the needle to the proper location near the nerve. When the location and/or response are optimal, the anesthesiologist will inject the long acting Novocain-like medicine in multiple small doses which will numb the front of your thigh and knee. This procedure takes only a few minutes to perform.

The block takes approximately 15-20 minutes to work. You will notice numbness over knee and inner calf area. Once in the operating room, you will once again be attached to the monitors and positioned by the surgeon. You will receive a light general anesthetic in addition to the adductor canal/saphenous nerve block as your anesthetic because this nerve block does not numb-up the entire knee, especially not back of the knee.

After the surgery and transport to the recovery room, the general anesthesia will begin to wear off. You will have little or no pain in the front of your leg or knee. However you will probably have some discomfort behind and below your knee. That is expected. You will receive pain medicine in the recovery room, as you need it.

The numbness and weakness from the block usually lasts from 16-24 hours and occasionally greater than 24 hours. As it begins to wear off, you should start the pain medicine prescribed by the surgeon.