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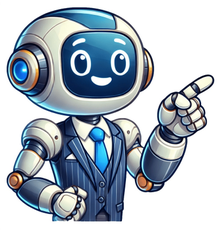

All types of anesthesia are administered to keep you comfortable and pain-free during surgery, medical procedures, or tests. But there are some key differences. The type you receive will depend on factors like the procedure, your health, and your preference. Local anesthesia prevents pain during procedures by blocking nerves from transmitting pain signals to the brain. The effects of local anesthetic are short-lived, so healthcare teams primarily use it for minor outpatient procedures.Anesthetists or doctors only apply local anesthetic to the part of the body that the medical procedure involves.People may also receive sedative drugs, which reduce stress levels and promote calmness. Together, anesthesia and sedation enable the doctor or surgeon to carry out the procedure without causing pain or distress.In cases where surgeons need to perform more invasive or long lasting procedures, anesthetists will typically administer a regional or general anesthetic instead.Healthcare professionals will consider several factors when determining whether to use local, regional, or general anesthesia. Local anesthesia is generally suitable in the following situations:The procedure is minor and does not require general or regional anesthesia.The procedure is quite quick, and the person will not need to stay overnight.There is no need to relax the muscles or for the person to be unconscious.Examples of procedures involving local anesthesia include dental surgery, biopsies, and the removal of a verruca, mole, or cataract.The type and dose of anesthesia will depend on many factors, including the persons age, weight, allergies, medical conditions, and the site and aim of the procedure.Healthcare professionals use various drugs to block the pain, which they can deliver in the form of an injection or a spray or ointment.The drug works by acting on certain nerve pathways to prevent the nerves in the area of application from sending signals to the brain.It usually takes a few minutes for the drug to take effect, and it wears off after a few hours. A higher dose will last for longer.Cocaine was the first anesthetic, but its use is now rare. Lidocaine is the most common local anesthetic, but doctors and anesthetists use different drugs for different purposes.Bupivacaine is more suitable for longer procedures, but it can be more painful than other drugs during administration. Therefore, an anesthetist may use lidocaine first and then inject bupivacaine later if numbness is necessary for a longer period.Synthetic anesthetics are similar in structure to cocaine, but they do not have the same potential for misuse.There may be some tingling and pain during the administration of the anesthetic and when it is wearing off, and a person may notice some bruising, but these effects are usually minor.An individual who has had a local anesthetic should be careful not to injure themselves while they cannot feel pain for example, by biting their cheek after dental treatment.Temporary adverse effects that affect some people include:blurred vision, dizziness, and vomitingheadachesmuscle twitchingcontinuing numbness, weakness, or tinglingSome individuals may also have an allergic reaction and develop hives, itching, and breathing difficulties.Additionally, cyanosis, where the skin becomes bluish or grayish in those with darker skin due to circulation issues or inadequate oxygenation of the blood, can sometimes occur.An overdose of local anesthetic can also lead to seizures, which can be life threatening.Local anesthesia is suitable for people undergoing minor surgery.Examples of minor surgery where local anesthetic is appropriate include: the removal of a tootha breast lumpectomycarpal tunnel releasea discectomy Examples of major surgery that would likely need general anesthesia include:the removal of a tumor from the bowela hysterectomyspinal fusiona joint replacementDoctors consider local anesthesia to be safer than general anesthesia, and it rarely causes serious complications.The benefits of local anesthesia, compared with general anesthesia, are that: It does not cause a person to lose consciousness.It does not usually need any special preparation.Recovery will be quicker than with general anesthesia.However, if a person is likely to experience anxiety during a procedure under local anesthesia, a doctor may recommend a sedative to help them stay calm.Healthcare professionals generally consider local anesthesia to be very safe. For minor surgery, it is safer than general anesthesia.In very care cases, people may experience serious complications. One of these includes central nervous system depression, where the bodys neurological functions slow down too much, leading to a decreased heart rate and breathing rate. This state can lead to cardiac arrest if the blood stops pumping to the heart.Some people may also have an allergic reaction, which could lead to hives, swelling, and breathing difficulty. A severe allergic reaction is known as anaphylaxis a medical emergency that requires urgent medical care.Another possible complication is seizures. While rare, these are more likely in young children than in adults. For these reasons, while local anesthesia is generally safe, only a trained professional should administer it.If a person is going to undergo surgery or another procedure that involves a local anesthetic, the doctor should explain how to prepare for it.The individual should inform the doctor if they are using any medications, especially blood-thinning agents, such as aspirin or warfarin.The doctor may instruct the person to refrain from eating during the few hours before surgery. It is also important not to drink any alcohol for 24 hours before receiving the anesthetic.An individual will often receive local anesthesia in the doctors office. Shortly after the doctor applies a local anesthetic agent to the relevant area of the body, it will begin to feel numb.The doctor will not proceed with the procedure if the person does not feel the numbing effect. While the anesthetic will prevent them from experiencing pain during the procedure, they may still feel pressure.Depending on the type of procedure and how anxious the person feels, the doctor may also give them a sedative. This medication will help the individual feel calm and less anxious.The doctor will often place a small device on the persons finger so that they can monitor the amount of oxygen in the blood. In rare cases, they may use a plastic nasal tube to provide extra oxygen.Healthcare professionals can also use local anesthesia to help diagnose some chronic conditions and relieve pain after an operation.An older study from 2010 found that local anesthetics eased some symptoms of inflammatory bowel disease in rats. However, more research is necessary to confirm whether the drugs have this effect in humans.Local anesthesia prevents pain during minor medical procedures by numbing a specific part of the body. However, a person may still feel some pressure during the procedure.Anyone administering any type of anesthesia must have received appropriate training and have the necessary qualifications.SurgeryPain / AnestheticsLocal anesthesia prevents pain during procedures by blocking nerves from transmitting pain signals to the brain. The effects of local anesthetic are short-lived, so healthcare teams primarily use it for minor outpatient procedures.Anesthetists or doctors only apply local anesthetic to the part of the body that the medical procedure involves.People may also receive sedative drugs, which reduce stress levels and promote calmness. 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However, a person may still feel some pressure during the procedure.Anyone administering any type of anesthesia must have received appropriate training and have the necessary qualifications.SurgeryPain / Anesthetics There are four main categories of anesthesia used during surgery and other procedures:general anesthesia, regional anesthesia, sedation (sometimes called "monitored anesthesia care"), and local anesthesia. Sometimes patients may choose which type of anesthesia will be used. Your physician anesthesiologist will discuss the types of anesthesia that would be safe and appropriate for the operation or procedure you need, and will explain your options clearly. Below, you will find more details and links to short videos that will give you more information. General anesthesiais what people most often think of when they hear the word "anesthesia". During general anesthesia, you are unconscious and have no awareness or sensations. Many different medications may be used during general anesthesia. Some are anesthetic gases or vapors that are given through a breathing tube or a mask. Some medications are given through the IV to induce sleep, relax muscles, and treat pain. Watch General Anesthesia Video UCLA physician anesthesiologists work with each patient individually to determine which combination of medications is best, depending on your state of health, your other medical conditions, the medications you take, any allergies, and the type of surgery you are having. The most frequent side effect of general anesthesia is drowsiness afterward. This typically goes away within the first hour or two after surgery ends. Some patients may experience a sore throat or nausea. If you have a history of motion sickness or nausea after prior operations, be sure to mention that to your physicians and nurses, as you may need medication before surgery to help prevent nausea afterward. Serious reactions to general anesthesia are very rare. Your anesthesia team has immediate access to emergency medications to treat any kind of reaction, and will monitor your vital signs continuously throughout surgery and recovery. Regional anesthesiamakes an area of the body numb to prevent the patient from feeling pain. It can completely block sensation to the area of the body that requires surgery. The anesthesiologist injects local anesthesia (numbing medication) near the cluster of nerves that provides sensation to that area. Watch Regional Anesthesia Video Two very common types of regional anesthesia arespinalandepidural anesthesia. Either one may be used for childbirth, or for orthopedic procedures such as total knee and total hip replacement. Sometimes, an epidural catheter is left in place to allow continuous pain relief to be given for one or more days after surgery. This is common after surgery on the chest or abdomen, even when general anesthesia is used during the operation. Nerve blocks are another type of regional anesthesia that can provide pain relief to a smaller area, such as an arm or leg. Examples includefemoral nerve blockto numb the thigh and knee, or abrachial plexus blockto numb the shoulder and arm. Having regional anesthesia for surgery doesn't mean that you have to be completely awake. Many patients prefer to receive sedation so that they can relax and doze off during the procedure. Sometimes regional anesthesia is used in combination with general anesthesia for major surgery on the chest or abdomen. This technique has the advantage that patients don't need as much opioid pain medication after surgery. Sedation, also known as "monitored anesthesia care", is what people have often referred to in the past as "twilight". Medications are given, usually through an IV, to make the patient feel drowsy and relaxed. Different levels of sedation are possible, depending on the type of procedure and the patient's preference. Watch Monitored Anesthesia Care Video Under mild sedation, often used for eye surgery, a patient is awake and can respond to questions or instructions. With moderate sedation, the patient may doze off but awakens easily. Deep sedation is nearly the same as general anesthesia, meaning that the patient is deeply asleep though able to breathe without assistance. Deep sedation with a medication called propofol is often used for procedures such as upper endoscopy or colonoscopy. Local anesthesiais the term used for medications such as lidocaine that are injected through a needle or applied as a cream to numb a small area. Local anesthesia alone may provide enough pain relief for limited procedures such as sewing up a deep cut or filling dental cavities. It is often used along with sedation during minor outpatient surgery. At the end of many operations, the surgeon may inject local anesthesia to provide additional pain relief during recovery. The goal of anesthesia is to keep you pain-free during surgery or other procedures, such as dental work or sutures. This is achieved by the use of medications called anesthetics. Anesthesia prevents the feeling of pain by stopping nerves from passing signals to the brain. Anesthesia is commonly characterized into four main types: general, regional, local, and sedation (monitored anesthesia care, or MAC). The choice of anesthesia depends on factors such as the procedure, the individual's health, and preferences. General anesthesia is used for major operations, including (but not limited to): Brain and heart surgeriesOrgan transplantsKnee and hip replacementsCertain types of surgical procedures to treat cancer It is the strongest and the most frequently used type of anesthesia. An anesthesiologist administers the anesthesia through a mask or an intravenous line (IV) placed in the vein. During general anesthesia, you will be unconscious, and many of the bodys functions will slow down and need support to work effectively. A tube may be placed in the throat to help you breathe. During surgery, the anesthesiologist will monitor the your heart rate, blood pressure, breathing, and other vital signs. When the surgery is complete, the anesthesiologist will reverse the medication and continually monitor your breathing, circulation, and oxygen levels. Some people may feel side effects from the medication. The anesthesiologist will help you manage these symptoms.Anesthesiologists are healthcare professionals who administer anesthesia and monitor the procedure to ensure maximum medical care with minimal side effects.Meeting with your anesthesiologist before the procedure is advisable. Discuss your medical history, medications, and lifestyle. This information helps the specialist take steps to lower the risk of side effects. Side effects of general anesthesia include:Nausea and vomitingSore throatPostoperative delirium (confusion when regaining consciousness)Muscle achesItchingChills and shivering (hypothermia) These side effects may go away after some time. Rarely, general anesthesia can cause more severe complications. Some risks are present and include:Postoperative delirium (sudden mental disturbance after surgery) or cognitive dysfunction can cause confusion and memory loss, lasting longer than a few hours or days. This can result in long-term memory and learning problems in certain people. Delirium is more common in older people, and those who have conditions such asheart disease, Parkinsons disease, Alzheimers disease, or stroke are more at risk.Malignant hyperthermia (severe reaction to anesthesia) can occur during surgery, causing a fever and muscle contractions. Tell your anesthesiologist if you have a family history of heatstroke or suffered from malignant hyperthermia during a previous surgery.Aspiration, which occurs when food or fluids are vomited up and into the airway during surgery. This is why it is advisable not to eat in the hours before receiving general anesthesia.Death (rare) is a risk of general anesthesia due to overdose. The risk increases with age. Local anesthesia numbs a small part of the body. It might be used for procedures such as pulling a tooth, performing a skin biopsy, repairing a broken bone, or stitching a deep wound. In local anesthesia, you are awake and alert and may feel some pressure, but you wont feel pain. Local anesthesia is the least likely to cause side effects. However, you may feel sore or experience itching at the injection site. Regional anesthesia numbs a large part of the body, such as an arm, a leg, or from the waist down. The anesthetic is delivered through an injection or small tube called a catheter.You may be awake or given sedation during the surgical procedure. Regional anesthesia includes spinal blocks and epidurals and is often used for childbirth and minor surgeries:Epidural: Commonly used to reduce pain during labor and delivery. It allows the individual to be awake and able to push to deliver the baby.Spinal block: Is stronger and is used for cesarean deliveries, also known as C-sections. Spinal blocks and epidurals allow the healthcare professional to surgically deliver the baby without causing pain to the person giving birth. It also protects the baby from the harmful effects of sedating drugs. Regional anesthesia is safe and doesnt involve potential complications or side effects. However, it carries some risks and must be provided and monitored by an anesthesiologist. The risks and benefits of regional anesthesia should be assessed individually. Fortunately, severe complications, including spinal cord damage, vertebral cord hematoma, and epidural abscess (infection between the bones of the spine and the membrane of the spinal cord), are quite rare. Sedation makes you sleepy and keeps you from feeling pain. It is also known as monitored anesthesia. There are different levels of sedation. Some people are drowsy but awake and can talk. However, others fall asleep and dont remember the procedure. Sedation has fewer side effects than general anesthesia and generally goes away quickly. Some common side effects include:HeadacheNauseaDrowsinessDifficulty urinating (if numbed from the waist down)Hematoma (bleeding beneath the skin) Severe complications are rare, but they can be a risk factor and include:Pneumothorax: When anesthesia is injected near the lungs, the needle may accidentally enter the lung. It can cause a lung collapse, filling trapped air between a lung and the chest wall.Nerve damage can occur, causing temporary or permanent pain. Your anesthesiologist will meet you a day before the procedure to discuss all pertinent medical information, such as:AllergiesChronic health conditions, including high blood pressure, heart problems, diabetes, liver or kidney disease, sleep apnea, thyroid disease, asthma, chronic obstructive pulmonary disease (COPD), or other breathing problemsSmoking historyAlcohol intakePrescription or over-the-counter drug use, including nonsteroidal anti-inflammatory drugs (NSAIDs), steroids, insulin, or oral hypoglycemicsPregnancy If you're getting general anesthesia, your healthcare provider will ask you to stop eating and drinking six to eight hours before the procedure. Anesthesia relaxes the muscles of the stomach and throat, which can cause food to back up and get into the lungs. An empty stomach helps prevent this. The American Association of Anesthesiologists' guidance suggests that you can drink sugar-free, clear liquids, like water, for up to two hours before the surgery. Your healthcare provider may tell you not to use certain medications a few days or more before your surgery due to potential interactions with the drugs used for anesthesia. These include blood thinners such as Plavix (clopidogrel) and Jantoven (warfarin) and NSAIDs like aspirin and Advil (ibuprofen). Recovery from anesthesia varies depending on the type of surgery and the type of anesthesia given. The following are the different stages of recovery from anesthesia. General anesthesia typically requires a longer recovery time than other types of anesthesia. After the surgery, an anesthesiologist reverses the medication. The person will be shifted to a recovery room. A healthcare professional will continue to monitor breathing, heart function, and vital signs in the recovery room. Some people feel sleepy as the anesthesia wears off. Others may have side effects such as nausea, vomiting, chills, or a sore throat from a tube that helped breathing during surgery. A discharge from the hospital will depend on the type of surgery you had and the time to recover.You may continue to be sleepy, and your judgment and reflexes may take time to return to normal. For other anesthetics, the recovery process is as follows: Sedation: Recovery is similar to general anesthesia, but you will usually wake up quicker and recover faster.Regional anesthesia: Recovery from regional anesthesia is quicker. However, people may sometimes experience headaches.Local anesthesia: Local anesthesia does not require recovery time and has no side effects. Different types of anesthesia are used to remove pain and sensation during surgery or other medical procedures. They work on brain and spinal cord nerves to achieve a loss of sensation. Anesthetics are medications used to achieve anesthesia, and the specialist administering them is called the anesthesiologist. Anesthesia is classified into four main types: general, local, regional, and sedation. The selection of anesthesia type and its mode of administration can depend on several factors, such as the procedure, individual factors (like certain health conditions), and preferences.Technique to induce the absence of sensation in a specific part of the bodyMedical interventionLocal anesthesiaMeSHD000772[edit on Wikidata]Local anesthesia is any technique to induce the absence of sensation in a specific part of the body,[1] generally for the aim of inducing local analgesia, i.e. local insensitivity to pain, although other local senses may be affected as well. It allows patients to undergo surgical and dental procedures with reduced pain and distress. In many situations, such as cesarean section, it is safer and therefore superior to general anesthesia.[2]The following terms are often used interchangeably:Local anesthesia, in a strict sense, is anesthesia of a small part of the body such as a tooth or an area of skin.Regional anesthesia is aimed at anesthetizing a larger part of the body such as a leg or arm.Conduction anesthesia encompasses a great variety of local and regional anesthetic techniques.Main article: Local anestheticA local anesthetic is a drug that causes reversible local anesthesia and a loss of nociception. When it is used on specific nerve pathways (nerve block), effects such as analgesia (loss of pain sensation) and paralysis (loss of muscle power) can be achieved. Clinical local anesthetics belong to one of two classes: aminoamide and aminoester local anesthetics. Synthetic local anesthetics are structurally related to cocaine. They differ from cocaine mainly in that they have no abuse potential and do not act on the sympathoadrenergic system, i.e. they do not produce hypertension or local vasoconstriction, with the exception of Ropivacaine and Mepivacaine that do produce weak vasoconstriction. Unlike other forms of anesthesia, a local can be used for a minor procedure in a surgeon's office as it does not put one into a state of unconsciousness. However, the physician should have a sterile environment available before doing a procedure in their office. Local anesthetics work primarily by reversibly blocking voltage-gated sodium channels in neuronal membranes, which prevents the initiation and propagation of action potentials along sensory nerves. This blocks nociceptive signals from reaching the brain.Local anesthetics vary in their pharmacological properties and they are used in various techniques of local anesthesia such as:Topical anesthesia (surface) - Surface application on mucous membranes or skin.Infiltration anesthesia: Direct injection into tissue near the site of the procedure.Peripheral nerve blocks: Injection near specific nerves or plexuses (e.g., brachial, femoral).Neuraxial anesthesia: Includes spinal and epidural techniques, which anesthetize broader regions through nerve root blockade.Adverse effects depend on the local anesthetic method and site of administration discussed in depth in the local anesthetic sub-article, but overall, adverse effects can be:localized prolonged anesthesia or paresthesia due to infection, hematoma, excessive fluid pressure in a confined cavity, and severing of nerves & support tissue during injection.[3]systemic reactions such as depressed CNS syndrome, allergic reaction, vasovagal episode, and cyanosis due to local anesthetic toxicity.lack of anesthetic effect due to infectious pus such as an abscess.Regional anesthesia has a rich history dating back to the late 19th century, with key pioneers advancing its development. Karl Koller introduced cocaine as the first local anesthetic in 1884, revolutionizing pain management.[4]August Bier performed the first spinal anesthesia in 1898, while James Leonard Corning explored epidural techniques.[5]Gaston Labat, often called the "father of regional anesthesia in America," founded the American Society of Regional Anesthesia in 1923 and authored the influential textbook Regional Anesthesia: Its Technic and Clinical Application. His work standardized techniques and promoted the field's growth.[6]Later, Manuel Martnez Curbelo pioneered continuous spinal anesthesia in the 1940s.[7]These innovations laid the foundation for modern regional anesthesia, enabling safer, targeted pain relief.Local pain management that uses other techniques than analgesic medication include:Transcutaneous electrical nerve stimulation, which has been found to be ineffective for lower back pain[citation needed], however, it might help with diabetic neuropathy.[8]Pulsed radiofrequency, neuromodulation, direct introduction of medication and nerve ablation may be used to target either the tissue structures and organ/systems responsible for persistent nociception or the nociceptors from the structures implicated as the source of chronic pain.[9][10][11][12][13]Medicine portalContinuous wound infiltration^ thefreedictionary.com > local anesthesia In turn citing: Mosby's Medical Dictionary, 8th edition. 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PMID15246341.New York School of Regional AnesthesiaAnesthesia Books[usurped]General information and tutorials in peripheral regional anesthesiaworldanaesthesia.org Free online manual of regional anaesthesia - John HyndmanClinical Use of Peripheral Nerve Stimulators and The Neuromuscular JunctionESRA - The European Society for Regional Anaesthesia CongressRetrieved from " MeSH Heading Anesthesia, Local Tree Number(s) E03.155.086.231 Unique IDD000772 RDF Unique Identifier Scope NoteA blocking of nerve conduction to a specific area by an injection of an anesthetic agent. Entry Term(s) Anesthesia, Infiltration Local Anesthesia Neural Therapy of Huneke NLM Classification # WO 340 See Also Anesthetics, Local Date Established 1966/01/01 Date of Entry 1999/01/01 Revision Date 2005/06/30 Anesthesia, Local Preferred Concept UIM0001159 Scope NoteA blocking of nerve conduction to a specific area by an injection of an anesthetic agent. Terms Anesthesia, Local Preferred Term Term UI T002291 Date01/01/1999 LexicalTag NON ThesaurusID NLM (1966) Local Anesthesia Term UI T626000 Date12/27/2004 LexicalTag NON ThesaurusID NLM (2006) TypesProcessSide effectsTakeaway What is local anesthesia?Local anesthesia refers to using a drug called an anesthetic to temporarily numb a small area of your body. Your doctor might use a local anesthetic before doing a minor procedure, such as a skin biopsy. You might also receive local anesthesia before a dental procedure, such as a tooth extraction. Unlike general anesthesia, local anesthesia doesnt make you fall asleep.Local anesthetics work by preventing the nerves in the affected area from communicating sensations of pain to your brain. Its sometimes used with a sedative. This helps you relax. Keep reading to learn more about the different types of local anesthesia and when theyre used.There are two main types of local anesthetics, depending on how theyre administered. Topical anesthetics are applied directly to your skin or mucus membranes, such as the inside of your mouth, nose, or throat. They can also be applied to the surface of your eye. Topical anesthetics come in the form of: liquidscreamsgelssprayspatchesIn some cases, your doctor might use a combination of local anesthetics for a more long-lasting effect. Examples of procedures that might involve topical anesthesia include:Over-the-counter (OTC) topical anesthetics, such as benzocaine (Orajel), can also help manage pain from: Local anesthetics can also be given as an injection. Injectable anesthetics are typically used for numbing during procedures, rather than pain management. Procedures that might include an injection of a local anesthetic include:dental work, such as a root canalskin biopsyremoval of a growth under your skinmole or deep wart removalpacemaker insertiondiagnostic tests, such as a lumbar puncture or bone marrow biopsyThe lists above are general examples. Several of these procedures, such as cataract surgery, can be done with either type of anesthetic. Your doctor will determine the best type for you based on several factors, including:the length of the procedurethe size and location of the area that needs numbingany underlying health conditions you haveany medications you takeYou dont need to do much to prepare for local anesthesia. Just make sure to tell your doctor if you:have any open wounds near the affected areatake any medications, especially ones that increase your risk of bleeding, such as aspirin have a bleeding disorderYoull be given local anesthesia shortly before your procedure to give it time to start working. This usually only takes a few minutes. While you shouldnt feel any pain, you might still feel sensations of pressure. Tell your doctor right away if you start to feel any pain during the procedure. They may need to give you a higher dose. Local anesthesia usually wears off within an hour, but you may feel some lingering numbness for a few hours. As it wears off, you might feel a tingling sensation or notice some twitching. Try to be mindful of the affected area while the anesthesia wears off. Its very easy to accidentally injure the numbed area in the few hours following a procedure. For OTC local anesthetics like Orajel, be aware that it may sting or burn a little when you first apply it. Never use more than the recommended amount on the products label. It can be toxic if too much is absorbed in your skin.Local anesthetics are generally safe and usually dont cause any side effects, aside from some tingling as it wears off. However, if youre given too much, or the injection goes into a vein instead of tissue, you might have more side effects, such as:ringing in your earsdizzinessnumbnesstwitchinga metallic taste in your mouthIn extremely rare cases involving very high doses, anesthesia may cause: seizureslow blood pressure slowed heart ratebreathing problemsIts also possible to have an allergic reaction to an anesthetic, but this is rare. A 2011 study estimates that only about 1 percent of people are allergic to local anesthetics. In addition, most allergic reactions to local anesthetics are due to a preservative in the anesthetic, rather than the drug itself. Local anesthesia is a relatively safe way to numb a small area before a procedure. It can also help manage pain on your skin or in your mouth. While it can occasionally cause side effects, this usually only happens in cases that involve doses above the recommended amount. There are four main categories of anesthesia used during surgery and other procedures:general anesthesia, regional anesthesia, sedation (sometimes called "monitored anesthesia care"), and local anesthesia. Sometimes patients may choose which type of anesthesia will be used. Your physician anesthesiologist will discuss the types of anesthesia that would be safe and appropriate for the operation or procedure you need, and will explain your options clearly. Below, you will find more details and links to short videos that will give you more information. General anesthesiais what people most often think of when they hear the word "anesthesia". During general anesthesia, you are unconscious and have no awareness or sensations. Many different medications may be used during general anesthesia. Some are anesthetic gases or vapors that are given through a breathing tube or a mask. Some medications are given through the IV to induce sleep, relax muscles, and treat pain. Watch General Anesthesia Video UCLA physician anesthesiologists work with each patient individually to determine which combination of medications is best, depending on your state of health, your other medical conditions, the medications you take, any allergies, and the type of surgery you are having. The most frequent side effect of general anesthesia is drowsiness afterward. This typically goes away within the first hour or two after surgery ends. Some patients may experience a sore throat or nausea. If you have a history of motion sickness or nausea after prior operations, be sure to mention that to your physicians and nurses, as you may need medication before surgery to help prevent nausea afterward. Serious reactions to general anesthesia are very rare. Your anesthesia team has immediate access to emergency medications to treat any kind of reaction, and will monitor your vital signs continuously throughout surgery and recovery. Regional anesthesiamakes an area of the body numb to prevent the patient from feeling pain. It can completely block sensation to the area of the body that requires surgery. The anesthesiologist injects local anesthesia (numbing medication) near the cluster of nerves that provides sensation to that area. Watch Regional Anesthesia Video Two very common types of regional anesthesia arespinalandepidural anesthesia. Either one may be used for childbirth, or for orthopedic procedures such as total knee and total hip replacement. Sometimes, an epidural catheter is left in place to allow continuous pain relief to be given for one or more days after surgery. This is common after surgery on the chest or abdomen, even when general anesthesia is used during the operation. Nerve blocks are another type of regional anesthesia that can provide pain relief to a smaller area, such as an arm or leg. Examples includefemoral nerve blockto numb the thigh and knee, or abrachial plexus blockto numb the shoulder and arm. Having regional anesthesia for surgery doesn't mean that you have to be completely awake. Many patients prefer to receive sedation so that they can relax and doze off during the procedure. Sometimes regional anesthesia is used in combination with general anesthesia for major surgery on the chest or abdomen. This technique has the advantage that patients don't need as much opioid pain medication after surgery. Sedation, also known as "monitored anesthesia care", is what people have often referred to in the past as "twilight". Medications are given, usually through an IV, to make the patient feel drowsy and relaxed. Different levels of sedation are possible, depending on the type of procedure and the patient's preference. Watch Monitored Anesthesia Care Video Under mild sedation, often used for eye surgery, a patient is awake and can respond to questions or instructions. With moderate sedation, the patient may doze off but awakens easily. Deep sedation is nearly the same as general anesthesia, meaning that the patient is deeply asleep though able to breathe without assistance. Deep sedation with a medication called propofol is often used for procedures such as upper endoscopy or colonoscopy. Local anesthesiais the term used for medications such as lidocaine that are injected through a needle or applied as a cream to numb a small area. Local anesthesia alone may provide enough pain relief for limited procedures such as sewing up a deep cut or filling dental cavities. It is often used along with sedation during minor outpatient surgery. At the end of many operations, the surgeon may inject local anesthesia to provide additional pain relief during recovery. If youre like most people planning plastic surgery, you arrived at the decision after plenty of thought and research. This means youve probably considered what type of anesthesia is appropriate for you.We recently discussed general anesthesia where the patient is completely asleep and unaware during surgery. Today lets dig into local anesthesia for plastic surgery procedures.Local anesthesia simply means that only the area that will have the procedure is numbed and the patient is awake. This is achieved with multiple small injections to the surgical site prior to the start of surgery. The medications used often end in -caine, such as benzocaine and lidocaine.Even though these injections block pain, many patients are anxious about undergoing surgery. This is why intravenous (IV) sedation is commonly used in conjunction with local anesthesia. IV sedation allows the patient to feel relaxed and comfortable while the local anesthesia blocks pain from the procedure.This is a safer alternative to general anesthesia because it doesnt paralyze the patient, meaning the patient doesnt need mechanical ventilation to breathe. It also requires fewer medications, so the effects wear off more quickly once the procedure has ended. Patients who have had local anesthesia with IV sedation typically walk out of the procedure on their own the same day after a short recovery period.Local anesthesia is considered safe for many different types of plastic surgery. The decision to use local or general anesthesia must take into account the patients health status, history of reactions to the drugs used in either type of anesthesia, the height, age and weight of the patient, and the procedure itself. It requires years of training to assess these factors and make the safest choice for the individual patients needs.Risks Associated with Local Anesthesia in Plastic SurgeryThere arent many risks with local anesthesia, but if a patient has a sensitivity to the drug beyond the norm or is allergic, there can be adverse reactions. For this reason, a patient will be monitored closely so appropriate steps can be taken if trouble arises.A potentially bigger concern is the qualifications of the person performing the procedure. Since local anesthesia allows procedures to be performed in an office setting, practitioners dont need to have privileges to operate in hospitals or surgery centers. Most facilities require certification from appropriate boards, such as the American Board of Plastic Surgery, but this isnt required for physicians to perform in-office procedures.This doesnt mean in-office procedures are generally unsafe, but it does make it important that you know what credentials your surgeon has and that they are appropriate for the procedure you have chosen.Local anesthesia or general anesthesia can be safe choices for most patients. It is important that patients consult with a qualified plastic surgeon so the choices that will lead to the best outcome can be made.Dr. Slack is board certified by the American Board of Plastic Surgery and a member of the American Society of Plastic Surgeons. If you would like to discuss any questions you have about plastic surgery with him, please schedule an appointment in his Allen, TX office. He looks forward to meeting you. Share copy and redistribute the material in any medium or format for any purpose, even commercially. 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anesthesia. But providers sometimes combine local anesthesia with sedation so you feel relaxed.Some medications containing mild local anesthetics like cold sore gels are also available as prescriptions or over-the-counter products.TypesLocal anesthetics come in many forms depending on their intended purpose, including:CreamsEye dropsGelsImplantsInjectionsOintmentsSkin patchesSpraysA few examples of local anesthetics healthcare providers use include:BenzocaineBupivacaineCocaineLidocaineRopivacaine with or without mepivacaineTetracaineHealthcare providers sometimes combine epinephrine or steroids with a local anesthetic to improve safety and make the anesthetic last longer.How does local anesthesia work?Local anesthetics work by temporarily blocking your peripheral nerves from sending pain and sensory signals to your brain. They dont slow down your central nervous system (CNS depression) or cause loss of consciousness.If the medication works properly, you wont feel pain in a specific area after having a local anesthetic. But you may still feel some pressure. Youll also be awake and alert.How long does local anesthesia last?Local anesthetics can last from 30 minutes to 12 hours or more. The rangedepends on factors like:The affected areaThe doseThe type of local anestheticThe use of additives like epinephrine or steroidsYour healthcare provider will let you know when to expect the local anesthetic to wear off. Contact your provider if you have numbness or muscle weakness that lasts longer than expected.When would I need local anesthesia?Healthcare providers use local anesthesia for a wide range of procedures to block pain. Some examples include:Certain eye procedures, like cataract surgeryCertain orthopedic surgeries, like arthroplastyDental procedures, like filling a cavity (dental filling) or root canalsMinor biopsies, like a skin or breast biopsyResetting a broken boneStitching a deep cut on your skinMinor plastic surgery procedures, like brow lifts, eyelid lifts (blepharoplasties) and lip liftsVaginal delivery or C-section (epidural) Plastic Surgery Allen TX | Cosmetic Surgery Plano | Reconstructive Surgeryadmin2025-06-18T20:55:30+00:00 Monday: 8:00 to 12:15 & 12:45 to 4:30Tuesday: 8:00 to 12:15 & 12:45 to 4:30Wednesday: 8:00 to 12:00 & 1:00 to 5:00Thursday: 8:00 to 12:15 & 12:45 to 4:30Friday: 8:00 to 12:00 & 1:00 to 4:00Our Allen, Texas office is conveniently located 30 minutes north of Dallas and easily accessible from surrounding cities such as Plano, McKinney, and Frisco, Texas.We are located in the professional building at Texas Health Presbyterian Hospital Allen. Local anesthesia numbs a part of your body so that your doctor can stitch up a wound or take a biopsy without you feeling any pain. Unlike general anesthesia, where you are put to sleep during a procedure, you will be conscious during the procedure.You can also use local anesthesia for relief from pain caused by cancer and some bone and joint diseases. Local anesthesia drugs help and are safer than opioids.Your nerves carry pain signals to your brain. Local anesthetic drugs block your nerves and prevent them from carrying these signals. This nerve blockage saves you from feeling pain.This blockage is temporary. Your nerves will start working in a while. Both movement and feeling will return.Doctors will need you to take general anesthesia for long and extensive procedures. You breathe gas through a mask or get an injection and fall asleep. When you wake up, the surgery is over.General anesthesia needs expert care. Since you're unconscious, your heartbeat, respiration, oxygenation, and blood pressure must be watched carefully. You may need help in breathing, too. While you're unconscious, you may vomit and suck the vomited material into your lungs. This can cause aspiration pneumonia, a dangerous condition. For your safety, your doctor will want you to fast for a few hours before anesthesia.General anesthesia is given to you by an anesthesiologist after your doctor assesses your health in advance.Local anesthesia, on the other hand, is simpler. Since you're awake with only part of your body numbed it's safer. Side effects like nausea and vomiting are not as common as those after general anesthesia.Local anesthesia relieves pain without the risks and preparation of general anesthesia. You're conscious and alert, and only part of your body is numb. It has other benefits too:An anesthesiologist is not needed. Your family doctor or surgeon gives the local anesthesia before starting the procedure.Local anesthesia side effects are uncommon and usually mild.Dangers like aspiration pneumonia are rare. Your procedure won't be delayed because you've eaten recently.You can go home sooner.Costs are much lower.Local anesthetic drugs are used in three different ways:Local application. You can apply local anesthetic ointment to open sores or mouth ulcers. Anesthetic eye drops numb the eye for your doctor to remove eyelashes or particles.Local injection. Your doctor injects a local anesthetic drug under the skin or deeper. You won't feel the needle pricks as your doctor sews a wound. Your doctor also uses such injections to take a biopsy or do a spinal tap to get cerebrospinal fluid (CSF) for testing.Nerve blocks. Local anesthetic drugs are injected near nerves to block the pain from the area supplied by the nerve. Your doctor uses nerve blocks for dental treatment and eye operations. Spinal anesthesia, used for doing cesarean section, is also a type of nerve block.Two kinds of local anesthetic drugs are used nowadays. The commonly used drugs are amides like lignocaine, prilocaine, and bupivacaine. The other group is esters like cocaine, procaine, and amethocaine.Most often, the effects of local anesthesia wear off quickly. The effect of commonly used local anesthetic drugs, like lignocaine, wears off in about an hour. Your doctor may combine a local anesthetic with other drugs like steroids, clonidine, or epinephrine (adrenaline). This prolongs the anesthesia.It's important to take care of the numbed part carefully. After dental treatment, for example, your mouth will be numb, and you might burn yourself by drinking hot coffee.When the local anesthesia is needed to work longer, your doctor will use slow-release forms of the drugs or apply continuous infusion of the local anesthetic drugs.Other than for surgery and other medical procedures, local anesthesia can be used for relief from pain and itching. You can use it for:Open sores, poison ivy contact, and other rashesCancer-related painJoint pain especially in the spineLabor pain where your doctor may give you an epidural anesthesiaDiagnostic processes like biopsy and spinal tapLocal anesthetics are given for local numbing, but it's absorbed into your body and carried by blood all over the body. You may have both local and generalized side effects, including:Soreness at the injection siteTingling feelingRinging in the earsHeadache, dizziness, and confusionDisturbances of the heart rhythm and blood pressure In general, there are four types of anesthesia that are routinely used, oftentimes in combination with one another.At UnaSource Surgery Center, a physician anesthesiologist in conjunction with a nurse anesthetist work as a team to provide all four types of anesthesia as follows. A combined approach ensures patients at UnaSource Surgery Center receive the most effective and comfortable anesthesia experience possible, leading to minimal narcotic use, earlier ambulation, and faster recovery times.1. General AnesthesiaThe first type is called general anesthesia and is the type that most people often think of when the word anesthesia is used. It entails a patient being entirely unconscious, either with anesthetic gases or IV medications.While unconscious, a patients normal physiologic functions (such as breathing) can be altered and may subsequently require assistance from such tools as a ventilator, an endotracheal breathing tube, or a laryngeal mask airway (LMA). Some medications are often used to relax muscles, prevent nausea, and treat pain.A skilled and highly trained provider will monitor the heart rate, blood pressure, oxygenation, and other vital signs. The biggest advantage to general anesthesia is the complete lack of awareness the patient has throughout the procedure.2. Monitored Anesthetic CareThe second type of anesthesia often used is termed monitored anesthetic care (MAC). This can be further subdivided into minimal, moderate, and deep sedation.With minimal sedation a patient is usually put in a more relaxed state but is awake enough to follow commands. Certain procedures require minimal sedation so that patients are able to move muscles voluntarily.Moderate sedation entails feeling quite drowsy and even sleeping through some of the procedure. However, a patient is quick to be arousable and may have minimal memory of the procedure.During deep sedation a patient is generally asleep but not unconscious and is able to maintain breathing on their own. The biggest advantage with this type of anesthetic is that it typically has the fewest side effects and the quickest recovery time.3. Regional AnesthesiaThe third type of anesthesia is regional anesthesia. This type is divided into two categories: neuroaxial and peripheral nerve block.With neuroaxial anesthesia, usually called a spinal or epidural, an anesthetic is induced into the spine to largely numb the chest, abdomen, or lower extremity.With a peripheral nerve block, nerves are selectively targeted using ultrasound guidance to numb one particular region (hand, shoulder, knee, etc.) to reduce sensation to only that particular area.Depending on the type of numbing agent used, the body part can be numb for 12-36 hours. Oftentimes, a pain pump can be inserted with a peripheral nerve block to provide pain relief up to five days after surgery. The biggest advantage to a peripheral nerve block is excellent pain control with minimal side effects.Here at UnaSource Surgery Center, a peripheral nerve block is commonly used for pain control in lieu of more harmful medications, such as narcotics, and in conjunction with either a general anesthesia or monitored anesthetic care (MAC) for a multimodal anesthetic approach.4. Local AnesthesiaThe fourth type of anesthesia is local anesthesia. This is ideal for smaller, shorter, and less invasive procedures such as mole or suture removal. Traditionally, a physician will use a short-acting local anesthetic and apply it directly to the site of operation. The site will be numb to touch for approximately 2-6 hours, and typically motor function will be unaffected. Carl Roehling, DOAnesthesiologist Local anesthesia numbs a part of your body so that your doctor can stitch up a wound or take a biopsy without you feeling any pain. Unlike general anesthesia, where you are put to sleep during a procedure, you will be conscious during the procedure.You can also use local anesthesia for relief from pain caused by cancer and some bone and joint diseases. Local anesthesia drugs help and are safer than opioids.Your nerves carry pain signals to your brain. Local anesthetic drugs block your nerves and prevent them from carrying these signals. This nerve blockage saves you from feeling pain.This blockage is temporary. Your nerves will start working in a while. Both movement and feeling will return.Doctors will need you to take general anesthesia for long and extensive procedures. You breathe gas through a mask or get an injection and fall asleep. When you wake up, the surgery is over.General anesthesia needs expert care. Since you're unconscious, your heartbeat, respiration, oxygenation, and blood pressure must be watched carefully. You may need help in breathing, too. While you're unconscious, you may vomit and suck the vomited material into your lungs. This can cause aspiration pneumonia, a dangerous condition. For your safety, your doctor will want you to fast for a few hours before anesthesia.General anesthesia is given to you by an anesthesiologist after your doctor assesses your health in advance.Local anesthesia, on the other hand, is simpler. Since you're awake with only part of your body numbed it's safer. Side effects like nausea and vomiting are not as common as those after general anesthesia.Local anesthesia relieves pain without the risks and preparation of general anesthesia. You're conscious and alert, and only part of your body is numb. It has other benefits too:An anesthesiologist is not needed. Your family doctor or surgeon gives the local anesthesia before starting the procedure.Local anesthesia side effects are uncommon and usually mild.Dangers like aspiration pneumonia are rare. 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The commonly used drugs are amides like lignocaine, prilocaine, and bupivacaine. The other group is esters like cocaine, procaine, and amethocaine.Most often, the effects of local anesthesia wear off quickly. The effect of commonly used local anesthetic drugs, like lignocaine, wears off in about an hour. Your doctor may combine a local anesthetic with other drugs like steroids, clonidine, or epinephrine (adrenaline). This prolongs the anesthesia.It's important to take care of the numbed part carefully. After dental treatment, for example, your mouth will be numb, and you might burn yourself by drinking hot coffee.When the local anesthesia is needed to work longer, your doctor will use slow-release forms of the drugs or apply continuous infusion of the local anesthetic drugs.Other than for surgery and other medical procedures, local anesthesia can be used for relief from pain and itching. You can use it for:Open sores, poison ivy contact, and other rashesCancer-related painJoint pain especially in the spineLabor pain where your doctor may give you an epidural anesthesiaDiagnostic processes like biopsy and spinal tapLocal anesthetics are given for local numbing, but it's absorbed into your body and carried by blood all over the body. You may have both local and generalized side effects, including:Soreness at the injection siteTingling feelingRinging in the earsHeadache, dizziness, and confusionDisturbances of the heart rhythm and blood pressure 'Local anaesthesia' refers to the reversible loss of sensation in a defined area of the body. This loss of sensation is achieved by the topical application or injection of agents that block the sodium channels that facilitate nerve impulses in tissue.The use of 'regional anaesthesia' or 'nerve blocks' refers to when local anaesthetic agents are injected adjacent to larger nerves, resulting in anaesthesia of large areas supplied by that nerve.'Tumescent anaesthesia' is carried out by injecting large amounts of fluids containing diluted local anaesthetic and adrenaline (epinephrine). It is used for liposuction and other plastic, cosmetic, and dermatological surgical procedures involving large areas of skin.Local anaesthesia is used in many dermatological procedures, surgical operations, and dental procedures. The aim is to minimise pain so that procedures can be conducted as efficiently and comfortably as possible.Lignocaine solution for injectionEutectic mixture of lignocaine with prilocaineWhat types of local anaesthetics are there?Local anaesthetics are categorised into two different classes based on their structure: para-aminobenzoic acid (PABA)based anaesthetics known as esters and non-PABA-based anaesthetics are termed amide local anaesthetics [1].Ester local anaesthetics include:BenzocaineChloroprocaineCocaineProcaineProparacaineTetracaineAmylocaineOxybuprocaine.Amide local anaesthetics include:ArticaineBupivacaineDibucaineEtidocaineLevobupivacaineLidocaine (also known as lignocaine)MepivacainePrilocaineRopivacaineSameridineTonicaineCinchocaine.Lignocaine (lidocaine)Both ester and amide local anaesthetics are available in a variety of formulations, including ointments, patches, and injections.Lignocaine (lidocaine) is the most commonly used anaesthetic in the surgical setting. It is effective, acts rapidly and is relatively free from toxicity and sensitivity. It is available in many different forms, including topical applications (eg, EMLA Cream and patches) and solutions for injection. It is frequently combined with adrenaline (epinephrine) to prolong the duration of anaesthesia, reduce associated bleeding, and increase the intensity of the nerve blockade through the reduction of systemic absorption.What is the maximum dose of lignocaine?The maximum dose of lignocaine varies based on the area and vascularity of the skin being anaesthetised and the condition of the patient. A higher dose may be used if lignocaine and adrenaline are being used.For cutaneous infiltration, the maximum dose without adrenaline is 3 mg/kg [2].What are the side effects or complications of local anaesthetic use?Local anaesthetics are well tolerated, and when used appropriately, have minimal side effects. Local side effects include temporary stinging, burning, and bruising secondary to the injection.More serious side effects are associated with the infusion or injection of high doses of local anaesthetics. The risk of local anaesthetic systemic toxicity is variable and is dependent on patient factors such as age, end-organ dysfunction, and the area being anaesthetised [3]. Most cases of local anaesthetic systemic toxicity occur after inadvertent intravenous injection.The symptoms and signs of local anaesthetic systemic toxicity are grouped into the central nervous system (CNS) and cardiac toxicity [3]. Initial CNS symptoms are a result of excitation, and can include:TinnitusPerioral numbnessMetallic tasteAltered mental statusMuscle twitchingSeizures.Eventually, as toxicity progresses, CNS depression occurs.Cardiac signs can occur independently of or in addition to CNS signs. Cardiac signs can include:TachycardiaHypertensionBradycardiaHypotension.As toxicity becomes more severe, cardiac signs can progress to arrhythmias (palpitations) and asystole (cardiac arrest).Is it possible to be allergic to local anaesthetics?Ester local anaesthetics are known sensitisers and therefore are associated with allergic reactions [1,4]. Cross-reactivity between ester local anaesthetics is also common (see our page Allergy to benzocaine). A hypersensitivity to amide local anaesthetics is much less common and cross-reactivity is unpredictable.Local anaesthetic hypersensitivity is nearly always a delayed hypersensitivity reaction (see our page Allergies explained). This requires previous sensitisation. Upon re-exposure to the allergen, patients will develop localised erythema and swelling in the area exposed to the local anaesthetic.Hypersensitivity to a local anaesthetic injected into the mucosal surfaces of the mouth can present with diffuse swelling of the face, which can appear like urticaria. Immunoglobulin E-mediated hypersensitivity reactions (such as anaphylaxis) are very rare.How is a local anaesthetic allergy diagnosed?The diagnosis of a local anaesthetic allergy is difficult because it is rare. Reaction to the preservatives in the solution can also occur [4,5]. Patch testing can be used to identify the cause of a delayed-type hypersensitivity, as well as the presence of cross-reactivity [4].How is a local anaesthetic allergy treated?The best management of an allergy to local anaesthetics is the avoidance of the identified allergen by the patient and their doctors (and any allergens that demonstrate a cross-reactivity).

Different type of local anesthetics. How many types of local anesthesia are there. Different types of local anesthesia in dentistry. Name of local anesthetic. Types of local anesthesia. Different types of local anaesthesia.