



What type of anaesthesia is best for you?

There are three options when considering how to perform a dental or oral surgical procedure. These options involve how we ensure the procedure can be made pain-free and acceptable to the patient. The options are local anaesthetic (LA), general anaesthetic (GA) or local anaesthetic with intravenous sedation (LAWS).

Local anaesthetic

This involves the injection of a small volume of anaesthetic solution in the area of the intended procedure that causes the area to lose all feeling and become numb. This is ideal for minor procedures in patients who are not especially nervous and can face the procedure without undue anxiety. It is also used for minor procedures in patients who have a complex medical history that may indicate the use of a general anaesthetic or sedation would carry with it significant risk to the patient's general well-being.

Local anaesthetic with modern drugs will allow almost any dental or oral surgery procedure to proceed without causing any discomfort to the patient. A local anaesthetic drug may have a duration of action that can vary from 2-3 hours up to 8+ hours depending on the drug used. The choice of drug is dependent on many factors taken into consideration by the dentist or surgeon.

General anaesthetic

This involves the patient being treated in either a hospital or day surgery unit. A specialist anaesthetist will assess the patient either immediately before the planned procedure (same day) or at a consultation prior to the date of the procedure if there is a complex medical history or if there are anticipated difficulties that the anaesthetist must deal with when providing the anaesthetic. Such issues may involve obesity, cardiovascular disease, breathing issues, obstructive sleep apnoea, liver or kidney disease, or physical, psychological or mental disability.

The patient will be given written instructions after their initial surgical planning consultation that will include instructions to neither eat any food nor drink any liquids for 6 hours before the intended time of your procedure. This is important to avoid the possibility of vomiting under anaesthetic, which can be very dangerous.

General anaesthetic refers to the administration of drugs that cause the patient to become unconscious. Anaesthetic drugs can be administered as a gas or volatile liquid that is breathed in and absorbed across the lung/blood interface, or by injection intravenously.

Once the patient is asleep, the anaesthetist remains responsible for ensuring that the patient continues to receive an adequate supply of oxygen to maintain all the body's organs in a healthy state. This is achieved by maintaining a clear and unrestricted airway for the delivery of oxygen to the lungs and the removal of carbon dioxide from the lungs. All the body's functions are monitored throughout the anaesthetic by the anaesthetist and the anaesthetic nurse by the use of an ECG (heart function), pulse oximetry (monitoring oxygen in the blood), capnography (monitoring absorption of oxygen and excretion of carbon dioxide) and non-invasive blood pressure monitoring. Normally the dentist or surgeon will provide local anaesthetic injections at the surgical site in addition to the general anaesthetic so that when the patient awakens from the unconscious state, they will feel no pain.

After the procedure is complete, the anaesthetist will stop the administration of anaesthetic drugs and allow the patient to awaken safely ensuring continued supply of adequate oxygen to help wash out the anaesthetic drugs the patient has been breathing.

The patient is then taken on a theatre trolley from the operating theatre to a high dependency nursing area called the Recovery area. Here a nurse who looks after only the one patient while they are gradually awakening from the anaesthetic will look after the patient. When the patient has recovered, the nurse will talk



with the patient to ensure they are suffering no pain. The nurse ensures that the patient continues to receive a good oxygen supply and that the patient does not feel nauseous. After suitable recovery, the patient will be transferred to the ward to rest.

It is usual for a patient to stay in the day ward for a couple of hours before the nursing staff are happy that they are safe to be released to the care of a relative or friend without medical training.

General anaesthetic is suitable for most patients as long as the severity or invasiveness of the procedure justifies the use of the anaesthetic drugs. The patient's general medical history is always taken into account before considering the most suitable way to enable the operation to proceed. This is part of the initial consultation and involves the patient in the decision process. Specialist Anaesthetists may in some circumstances need to discuss a patient's past medical history with the patient's medical specialists.

In a few circumstances, patients who may have only received a relatively minor procedure, may have to be transferred to Intensive Care for monitoring and nursing. Such a situation may apply to a patient with a history of Obstructive Sleep Apnoea. OSA patients hold their breath when they are asleep, sometimes for quite prolonged periods of time, and do so on a repetitive basis. As a result the saturation of oxygen in their blood can become depleted to a dangerously low level that can endanger their brain and other organs. If such patients have a general anaesthetic, then the residual anaesthetic agents may prolong the periods of breath holding (apnoea). It is important such patients wear their Continuous Positive Airway Pressure pump (CPAP) after recovery from the anaesthetic to avoid prolonged apnoea. If they cannot do so or do not have one, then ICU admission may be required to monitor them carefully and continuously. These patients are therefore best nursed in ICU after surgery until the anaesthetic drugs have been eliminated from their body.

Local anaesthetic with sedation

Patients who could receive treatment under local anaesthetic, but for their anxiety over the procedure, benefit from the use of a sedative drug to eliminate the anxiety. The most reliable way in which to use sedative drugs, is intravenously. Oral use is unreliable and depends on many factors including food intake and therefore a reliable degree of sedation cannot be relied upon from a known dose of medication.

Like general anaesthesia, patients about to receive intravenous sedation must fast before sedation to minimise the possibility of vomiting while sedated and thereby endangering their airway.

Even very anxious or dentally phobic patients are almost always treated most successfully once the chemical reactions that lead to anxiety have been blocked using sedation drugs. These patients recover very well from sedation and the medical procedure they have undergone and have no memory of the procedure and are always surprised by the time that has lapsed since they were last aware of their surroundings.

A further group of patients who benefit from sedation are those who suffer from severe gagging during oral and dental procedures due to a heightened gag reflex. The gag reflex appears to become more severe and problematic as we get older. Often patients who coped perfectly well with routine dental procedures when they were young adults can go on to develop a problem gag reflex and these patients can often only be treated successfully under sedation. In many instances, patients are embarrassed about their gag reflex but it is an involuntary action over which the patient has no control. We understand this and no embarrassment is necessary.

Sometimes there is no choice in the mode of treatment. It may be that a GA is the only way in which a procedure can be carried out. The decision making process will be discussed with you at your consultation and you will be fully involved in the decision process.

Financial implications.



The financial implications depend on whether you have private health insurance. Those patients with hospital cover will have a gap payment to make for the anaesthetic and another for the dental or oral surgery treatment. For those patients with no private health insurance the cost of the day surgery unit or hospital and the cost of the anaesthetic must be paid in full by the patient prior to surgery. In addition the dental fees have also to be paid in full before the procedure date. Obviously if a patient has no insurance the costs are going to be much higher for hospital or day surgery treatment. In these cases we would usually try to provide the treatment under Local anaesthetic with sedation.