

Coblation Tonsillectomy

Tonsillectomy and adenoidectomy remain the most common surgical procedures performed by an ENT surgeon. They also remain controversial procedures as to the benefits and complications. Parents of young children can become confused by the emotional hysteria and misinformation regarding not only the function of this tissue but also the complications of surgery.

Since the first tonsillectomy was performed by Celsus in 30 BC, myriad surgical techniques have been described, most notably in the 20th century. From the standard procedure of blunt dissection and tying off of possible bleeders to laser tonsillectomy, all have come with their own set of complications. The main two, however, remain that of post operative pain and bleeding. The onset of coblation surgery has minimised these two main complications to such an extent that in the short period of three years since it has been introduced, it has become the treatment of choice for adenotonsillectomy in Great Britain.

Let us start by understanding the basic concepts. What is adenoid and tonsillar tissue and what is their function? Although these are seemingly simple questions, the answer, or lack thereof, is probably the reason for the confusion and emotional debate.

Tonsils and adenoids are lymphoid (glandular) tissue clumped together in the back of the throat and nose respectively. What is often forgotten however, is that they form part of a ring of lymphoid (glandular) tissue in the nose and throat area called the Waldeyer Ring, named after the German surgeon first describing this ring in the early 20th century

Homeopaths often claim that the tonsils and adenoids act as a “filter” for bacterial and viral organisms and by removing them, the body will be prone to more infections which will manifest at other sites in the body. The function of the adenoids and tonsils is to stimulate the immune system, for viruses and bacteria entering the area, which in turn produces specific antibodies to infections that pass through the nose and mouth. This function can and will be performed by the remaining tissue in the Waldeyer ring after an adenotonsillectomy. Numerous studies have shown that the immune system will not be compromised by an adenotonsillectomy. Further knowledge of any other function remains uncertain.

Lymphoid tissue contains crypts (“pits”) on the surfaces and it is these crypts that act as a home for the common bacteria and viruses that can cause your child to become ill in the upper airway. In a way, the adenoidal and tonsillar tissue becomes the problem as the crypts harbour infective organisms and thus become ineffective in stimulating the immune system and cause chronic recurrent infections. The indications for surgery are recurrent upper respiratory tract infections

due to “sick” tonsils or obstruction of the nose and throat due to enlarged glandular tissue. No child is supposed to snore and if they do, it is a sign of obstruction of the airway.

Coblation tonsillectomy utilises a sodium rich solution which fills the space between the tonsil tissue and the tonsil bed combined with an electric current that dissociates (breaks-up) the sodium ions causing tissue destruction. Bleeding points are minimized and identified immediately with Coblation surgery due to the excellent and almost bloodless surgical field. The incidence of post operative bleeding has thus diminished significantly.

Local tissue damage is reduced because much less heat (60-70° C) is generated when compared to laser surgery or bi-polar tonsillectomy where temperatures in local tissue can reach 600°C. This allows for much less pain and the possible co-morbidity of dehydration due to a child that refuses to eat or drink.

Surgery on any patient should never be taken lightly. The benefits of adenotonsillectomy in cases where your ENT or Paediatrician have recommended it, have with the advent of this new technology, ***Coblation***, just became a much less frightening experience.