

# Conventional Curettage Adenoidectomy Versus Endoscopic Assisted Adenoidectomy

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**A**n adenoidectomy is the surgical treatment that consists in the removal of hypertrophied lymphatic tissue (Lushka's pharyngeal tonsil), which blocks the rhinopharynx, behind the nose.

Hypertrophy is the result of an abnormal development of the lymphatic follicles either from birth or as a result of repeated infections of the upper respiratory tract. Hypertrophy, in its turn, favors recurrent infections, blocked nose, rhinitis, rhinosinusitis, tonsillitis, recurrent otitis, laryngitis and bronchitis. Subjective manifestations are dominated by chronic nasal obstruction, which make the child breathe with an open mouth, snore during sleep, and sometimes eat with difficulty. A characteristic is also the alteration of the voice, which may become "nasal" and the decrease of the auditory function due to recurrent otitis

A positive diagnosis entails a correlation between symptomatology and an endoscopic exam of the nose and behind the nose (showing a significant growth in volume of the lymphatic tissue in the rhinopharynx); an oto-mi-

croscopic exam and an audiogram are always necessary to evaluate the morphology of the tympanum and the auditory function. The hypertrophic adenoid tissue blocking the Eustachian tube opening in the rhinopharynx may affect the latter. Correct nasal breathing and proper Eustachian tube ventilation influence the growth and development of the child in a decisive manner.

A differential diagnosis must be performed with all other causes of a nasal and rhinopharyngeal obstruction:

- Choanal atresia (newborn and infant)
- Chronic hypertrophic rhinitis, septal deviation, nasal polyposis (older children)
- Juvenile angiofibroma (during puberty-for boys)
- Tornwald's Cyst, chordoma, malignant lymphoma, lymphoepithelial carcinoma, and the hypertrophy of the pharyngeal tonsil during HIV infection (in adults). Sometimes, a tissue sample under endoscopic control is necessary in order to establish a positive diagnosis.

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Surgical indication (adenoidectomy) is necessary every time the volume of the adenoids becomes blocking, producing respiratory, auditory or infectious complications, before any growth or developmental delays appear. The surgery can be performed starting with the age of eight months, but in selected cases. The most frequent time when the surgery is performed is between four to six years.

There are two technical surgical approaches for the removal of the adenoids in the rhinopharynx:

- Conventional curettage adenoidectomy
- Endoscopic assisted adenoidectomy

The conventional curettage for removing adenoids is to take a curette and scrape the hyperlymphatic tissue in the rhinopharynx transorally behind the nose. The risk of this classic technique lies in the possibility that part of the adenoid tissue may remain in the rhinopharynx. Some studies suggest that conventional curettage adenoidectomy resulted in the retention of up to 34.3% of the total preoperative adenoid tissue volume. It remains to be determined whether the residual adenoid tissue is of pathogenic or partial obstructive significance. It is therefore suggested that following classic curettage adenoidectomy residual tissue should be removed under direct vision through an endoscope (transnasal or transoral) in order to complete the procedure.

Many ENT specialists insist on applying endoscopic assisted adenoidectomy from the beginning of the operation, if the necessary technology is available. This increases the positive outcome of the surgery because:

- It allows for a good control of the nose, nasopharynx and the region of the Eustachian tube openings (with rigid endoscopes at 0, 30, and 70 degrees used transnasally and transorally).
- This procedure allows the removal of adenoid tissue and a direct vision, increasing the volume of removed adenoid tissue.
- It decreases the risk of damaging the Eustachian tube openings in the region of the rhinopharynx. The nasal passage and the Eustachian tube openings would be clear following the near total removal of the adenoid tissue of the rhinopharynx.
- Endoscopic assisted adenoidectomy can be performed not only with a classical Beckman curette, but also with a radiofrequency curette or using powered instruments like a shaver (microdebrider) cutting and suctioning the hyperthropic lymphatic tissue.

In conclusion, taking into account the positive outcome of applying endoscopy associated with modern operative technologies (curettage under vision, radiofrequency, microdebrider), an endoscopic assisted adenoidectomy is recommended.

## REFERENCES

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