

Laryngomalacia

What is laryngomalacia?

Laryngomalacia is the most frequent cause of stridor or noisy breathing in infants. It occurs because of a floppy portion of the larynx (voice box) above the vocal cords that has not yet developed the strength to provide rigid support of the airway. While breathing in, negative pressure is created through the larynx, which results in a collapse of these structures into the airway and a narrower breathing passage. The partial obstruction causes turbulent airflow which is the source of the noise with breathing.

What are the characteristics of laryngomalacia?

The hallmark sign includes a high-pitched or squeaky intermittent sound noted on inspiration (breathing in). It is usually more prominent when the infant is lying on his/her back, crying, feeding, and excited or has a cold. This is usually noticed in the first few weeks of life. It may worsen over the first few months and become louder. This is because as the baby grows, the inspiratory force is greater, which causes greater collapse of the laryngeal structures into the airway. This is usually at its worst at 3-6 months and then gradually improves as the rigidity of the cartilage improves. Most children are symptom free by 18-24 months.

Is laryngomalacia a dangerous condition?

It is usually a benign, self-limiting condition, which does not interfere with a child's growth and development. More worrisome symptoms to be mindful of include difficulty with feeding, inward collapse of the chest wall above or below the ribs during inspiration, failure to gain weight and colour changes to pale or blue.

How is laryngomalacia diagnosed?

The diagnosis of laryngomalacia can be suspected clinically and is often confirmed using a flexible telescope or fibre-optic laryngoscope. This is a flexible tube that contains light carrying fibres connected to a camera that is passed through the nose and allows the doctor to view the voice box. This procedure is performed in the clinic with the child awake. After a detailed examination, the ENT surgeon will categorise the condition as being mild, moderate, or severe.

How is laryngomalacia managed?

Mild to moderate symptoms and signs may be managed by observation in the outpatient clinic only. Severe obstruction may require home monitoring of breathing and a more detailed assessment. Occasionally a surgical procedure to relieve the obstruction (CO₂ LASER supraglottoplasty) and correct the functional abnormality is required.

Is laryngomalacia associated with any other conditions?

Laryngomalacia often has an association with stomach acid reflux (GORD). All infants have some reflux to some degree or another; however, infants with laryngomalacia often have more stomach acid reflux than others. When the stomach acid regurgitates to the level of the voice box, we suspect it can cause further swelling of the airway and worsening of the noisy breathing. Children with this condition do better if lying on their sides or stomachs, sitting upright or at a 30-degree angle. The child should also be held in an upright position for 30 minutes after feeding and never fed lying down. If the reflux is significant, medicine may be prescribed and thickening of feeds may be recommended.