

# CHILDHOOD COUGH

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Cough is an important physiological protective reflex that clears airways of secretions or aspirated material . Chronic cough in a child may generate parenteral anxiety and disrupt other family members' sleep. Lessons at school may also be disturbed.

Acute cough is typically defined as being of less than three weeks' duration and chronic cough is defined as lasting from three weeks to twelve weeks . Most children with acute cough have a viral infection of the upper respiratory tract , which is self limiting .

### Assessing a Child with Acute cough:

Consider the potential causes of acute cough . The most common cause is a viral infection of the upper respiratory tract that will provide no specific clinical investigations . Healthy children cough on a daily basis and experience upper respiratory tract infections several times a year . A systematic review of studies set in primary care found that 24 % of pre-school children continue to be symptomatic two weeks after the onset of an upper respiratory tract infection. A child will characteristically have a runny nose and sneezing . The factors that predict future complications are fever , tachypnoea or chest signs .

However , acute cough may also be accompanied with a lower respiratory infection, allergy or an inhaled foreign body , or it may rarely be the presenting symptom of a serious underlying disorder such as cystic fibrosis or immunodeficiency .

Take a careful history and perform a thorough clinical examination. Foreign body aspiration is not always accompanied by an obvious history . Suggestive features include sudden onset of coughing or breathlessness. Urgent referral for specialist assessment and rigid bronchoscopy is indicated if an inhaled foreign body is suspected .

Include in the clinical examination an initial rapid assessment to judge the child's general condition , incorporating objective measurements of respiratory rate , heart rate oxygen saturations and temperature . Examine for signs of an upper respiratory infection , for example runny nose , inflamed tympanic membrane and throat ) or effects on the lower respiratory tract (for example crackles , wheeze or abnormal air entry ). Systematic reviews have shown that the best single finding to rule out pneumonia is the absence of tachypnoea. Exclude the presence of any signs of a more chronic problem , such as poor growth or nutrition , finger clubbing , chest deformity or atopy.

Indications for the Performing a Chest Radiography and considering Specialist Radiography and considering Specialist Referral:

1. Uncertainty about the diagnosis of pneumonia in the context of rapid breathing in the absence of wheeze or stridor , localising signs in the chest , persistent high fever, cough and fever persisting beyond 4-5 days.
2. Possibility of an inhaled foreign body, in the context of cough of sudden onset or presence of asymmetrical wheeze or hyperinflation.
3. Pointers suggesting that this is a presentation of a chronic respiratory disorder, in the context of growth faltering , finger clubbing or chest deformity.
4. Unusual clinical course in the context of the cough being relentlessly progressive beyond 2-3 weeks or recurrent fever after initial resolution.
5. Uncertainty about the child having true haemoptysis, in the context of spitting out of blood from nose bleeds, cheek biting , or pharyngeal oesophageal or gastric bleeding .

### Management of Acute Cough:

Supportive treatment only, including antipyretics if necessary and adequate intake of fluids, is indicated for viral infections of the upper respiratory tract . Antibiotics are not beneficial in the absence of signs of pneumonia. Bronchodilators are not effective for acute cough in children who do not have asthma. A Cochrane review found no good evidence of effectiveness of over the counter drugs such as antihistamines or decongestants based preparations.

If pertussis is diagnosed , treatment with a macrolide antibiotic is indicated.

Further unnecessary health care consultations may be reduced by explaining these points to parents and providing them with information about what to expect.

### Assessing a child with Chronic cough;

British Thoracic Society guidelines defines chronic cough as cough that lasts longer than eight weeks . Children with chronic cough may be divided into three groups: normal children; children with specific cough and a clearly identifiable cause; and children with the so called non specific isolated cough , who are well with a persistent dry cough , no other respiratory symptoms or signs of an underlying disorder and a normal chest radiograph. Children

with non-specific isolated cough have an increased frequency and severity of cough , although the specific cause have not been identified . In these cases plan a follow up visit to allow re evaluation at a later date . Non-organic coughing includes habit cough and pschogenic cough.

A careful history and examination will enable the clinician to identify features that may be suggestive of an underlying disease process.

important Points in the History of a child with Chronic Cough:

Nature of the cough: severity,time course,diurnal variability,sputum production.

Associated wheeze , any haemoptysis?,disappears during sleep?

Age of onset

Relation to feeding and swallowing(?aspiration)

Fever

Contact with TB or HIV Chronic ear or nose symptoms( is there a problem with cilia function?) Foreign body aspiration Relieving factors such as antibiotics or bronchodilators Exposure to cigarette smoke Possible allergies immunisation status family History of atopy ( Is this asthma ?) General growth and development

Red flag that should prompt Specialist Referral:

Neonatal onset of cough Chronic,moist ,wet or productive cough Cough started and persistent after a choking episode Neurodevelopmental problems also present auscultatory findings chest wall deformity haemoptysis Recurrent pneumonia gROWTH FALTERING FINGER CLUBBING gENERAL ILL-health co-morbidities, such as cardiac disease or immunodeficiency