

Indian Academy of Pediatrics (IAP)



## GUIDELINES FOR PARENTS

# My Child is having Fever with Cough: What to Do?

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### 10 FAQs on MY CHILD IS HAVING FEVER WITH COUGH: WHAT TO DO?

1. Why a child gets fever or cough?
2. What is significant fever or cough?
3. What is the most likely cause of fever and cough in my child? When it will subside?
4. When should I have to go to my doctor for fever and cough in my child?
5. How to comfort my child with fever and cough?
6. My child is getting frequent fever and cough. How can I prevent it? Give him something to increase immunity.
7. Does my child need to get blood test or X-ray?
8. Can we give antibiotics to my child? It worked last time very fast.
9. Can I use over-the-counter (OTC) cough syrup or combination cough fever syrup for my child? Can I use adult medicine half dose?
10. My 3-month-old infant has fever and cough. Is it same as my 5-year-old child with fever and cough?

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# My Child is having Fever with Cough: What to Do?

*Fever and cough are two common symptoms of underlying disease in children and not diseases in themselves. They suggest different meaning when they appear alone individually or separately or with changing sequence of appearance.*

**Q1**

## Why a child gets fever or cough?

All normal healthy human beings have defense mechanism against any insult to body. If any particle enters your windpipe or lungs, the body tries to push it out by coughing. When your windpipe and small breathing pipes get some irritation in them, may be by infection or allergy, it induces cough. Thus, *cough is a defense mechanism of the human body*. Cough has various underlying causes such as viral infection, allergy, asthma, something stuck in the windpipe (foreign body), etc. Viral infection is the most common cause of cough in children. It is very important to recognize the cause so as to give specific effective treatment.

Fever is again a body's defense mechanism. Whenever any infecting agent (bacteria, virus, etc.) enters body, body induces defense mechanism to contain it (inflammation). In this process, a lot of chemicals are released by body which warm the body. This warming is to destroy the infecting agent. Thus, *fever is a defense mechanism of the body against infection*. Fever may occur in diseases without infection also. Such diseases can be long-standing chronic disorders or some serious acute diseases such as blood cancer (leukemia) and exact cause of fever need to be recognized timely to have good outcome. Generally, in children, fever indicates infection.

Q2

### What is significant fever or cough?

- Objectively documenting fever is essential for appropriate diagnosis and management of fever.
- Fever is an abnormal elevation of the body's temperature and is defined as:
  - Rectal (buttocks) temperature > 100.4°F/38°C
    - Temporal artery (forehead) temperature > 100.4°F/38°C
    - Tympanic (ear) temperature > 100.4°F/38°C
    - Oral (mouth) temperature > 100°F/37.8°C
    - Axillary (armpit) temperature > 99°F/37.2°C
  - Fever in infants (over 3–6 months old) and children is not always a dangerous or life-threatening symptom. Even if a child's fever is very high, the actual temperature is not reflective of the severity of the illness...so, an ill-appearing child with a fever of 100.4°F is much more concerning than a well-appearing child with a fever of 104°F.
    - For accuracy and safety purpose temperature recorded by *digital thermometer* in axilla is ideal and safe for home situation. Before giving any medication for fever, it is ideal to document temperature and note down on "Date, Time, and Temperature chart". This helps later in recognizing the pattern of fever, its response to medications and hence for more accurate clinical diagnosis.
    - Sometimes a small infant may be overwrapped in clothes leading to fever. In such cases unwrapping and keeping baby open for few minutes may bring temperature back to normal.
    - Cough is the most common misinterpreted symptom in pediatric practice more so in small infants. Many times, parents bring infant with ghar-ghar chest sounds. These are merely sounds due to secretions in throat creating turbulence in the wind flow and usually are normal phenomena in infants. If it is with frequent cough bouts, fast breathing, decreased activity or feeding difficulty, the child needs to be evaluated by doctor.

### Q3

#### What is the most likely cause of fever and cough in my child? When it will subside?

- The most common cause of fever and cough in a child is viral respiratory infection. In such situation, fever is quickly followed or accompanied by cough and associated cold, congestion of nose, body ache, and headache. In viral infections, fever usually lasts for 3–5 days and cough may continue for 1–3 weeks.
- Less commonly fever and cough can be a presentation of bacterial disease-like pneumonia, or more sinister diseases. If fever continues beyond 4 days or cough is progressively increasing with added symptoms as mentioned here, it indicates possibility of such sinister causes and needs to be seen by doctor immediately. The fever and cough in bacterial infections usually will not subside unless properly treated.
- If cough is predominant at beginning with low or no fever other causes like allergy is possible. Sometimes childhood asthma may present with cough and fever symptoms, but there cough is usually a major symptom and fever is transient and low grade, usually not bothersome.

### Q4

#### When should I have to go to my doctor for fever and cough in my child?

##### When can you manage fever and cough at home?

- In first 3–4 days of fever and cough, if child is responding to paracetamol, active, playful comfortable in the interfebrile period, feeding adequately, passing urine well... maintain fever chart and observe at home.
- Consult doctor immediately, if:
  - Fever not responding to paracetamol
  - Child not active between fever
  - Cough and fever disturbing routine activity... sleep, feeding, play, etc.
  - Fever beyond 3 days
  - Fast breathing or effortful breathing... feels breathless... difficulty in speaking
  - Additional sounds during breathing... stridor, wheeze
  - Choking-like feeling
  - Bluish or pale look on face
  - Child sleeps a lot
  - Decreased intake and urine
  - If child has pre-existing major illness, contact your doctor immediately on any fever symptom

Q5

### How to comfort my child with fever and cough?

Though these are combination symptoms in a given child, the remedies for them are separate and independent depending upon which symptom is disturbing the child. It may be one or both.

#### For Fever

- If your child with fever is eating, drinking, and playing, then you need not do anything. Remember the fever is helping your child to fight infection.
- *Do's*: If your child is not comfortable, you can:
  - Encourage him/her to rest.
  - Encourage them to drink lots of fluids such as water, milk, fruit juices, etc.
  - Offer small healthy meals to the needs.
  - Make sure their room temperature is comfortable and steady (not too hot or too cold).
  - Use a cool (room temperature) cloth to wash their face, hands, and neck.
  - Keep your child in light-weight clothing and bedding, such as a singlet and pants covered by a sheet.
  - Change the bed linen and clothing regularly.
  - Check your child during the night.
  - Take them to the doctor if they do not seem to improve or you are at all worried.
- *Don'ts*:
  - Use any rapid cooling methods that make your child shiver.
  - Use hot water bottles or electric blankets.
- *Medicines*:
  - If your child is happy, you do not need to treat the fever with a medicine.
  - If your child looks sick and is not active, you can give *paracetamol*. Paracetamol may not bring temperature to normal, its role is to comfort the child. Paracetamol can be repeated after about 6 hours if fever recurs. You must follow the dosage instructions on the bottle. It is dangerous to give more than the recommended dose.

#### For Cough

- Generally, you can relieve mild cough at home. Usually, the cough will clear up in a few days to a couple of weeks.
- Home care suggestions for mild cough and fever in children include:
  - Avoid smoking in the home which increases the cough episodes.
  - Drink warm water.
  - Saline drops for blocked nose.
  - Vapor rubs—can be applied to the chest and back.
  - Menthol soothing, camphor, and eucalyptus oil in petrolatum jelly.
  - Steam inhalation—can also help to relieve congestion and coughing. This therapy has to be strictly supervised and very carefully done to avoid accidents.

### Q6

#### **My child is getting frequent fever and cough. How can I prevent it? Give him something to increase immunity.**

Cough and fever are commonly not a symptom of immunity loss. This term “immunity” is used very often nowadays, more often by parents than doctors, due to misinterpretations and incomplete information provided on various platforms and half knowledge acquired by patients. Immunity is essential part of every healthy individual. It is immature at birth and gets mature as he grows. The immunity matures on exposure to various natural experiences by body including infections in early childhood. The small infant with immature immunity obviously is more prone to frequent viral and bacterial infections. As he gets experience to these natural infections, his body learns to recognize them and abort them for later life. Thus, every normal child gets average 10–12 infections in first year of life and about 6–8 infections in second year of life. You may say, this is essential so as to fall sick less frequently in later life.

*Factors to boost immunity naturally and avoid frequent cough and fever are:*

- Take all available vaccines.
- Exclusive breastfeeding to baby for first 6 months and later continue till 2 years along with complimentary feeds.
- Maintaining balance diet and nutrition full of vitamins, minerals, and proteins.
- Vitamin D supplements for first year of life.
- Iron supplements in infancy.
- Avoid smoke and dust exposures.
- *Healthy habits of hygiene:* Bath, tooth care, nail care, handwashing before any meal, and proper sanitary hygiene. There are no immunity boosters in scientific medicine for preventing frequent cough cold.

### Q7

#### **Does my child need to get blood test or X-ray?**

The decision to do blood test or X-ray chest is taken by your doctor after detail history and proper examination. Most of the times such tests are not needed, but doctor may do them if:

- The symptoms get prolonged.
- The symptoms not resolving or responding as expected.
- Your child is sick on first visit itself or shows progression of disease in spite of treatment.
- To diagnose the disease or at times to confirm the clinical diagnosis or monitor the progress of the disease.

### Q8

#### **Can we give antibiotics to my child? It worked last time very fast.**

Most of the time, fever with cough is a presentation of viral respiratory infection. Very few (<10%) are bacterial infections. Antibiotics are effective against bacterial infections and have no role against viral infections. For diagnosing the lesser common bacterial infections, child has to be examined properly and antibiotics cannot be given without examination. All drugs and especially antibiotics have multiple side effects if used unnecessarily or in improper dose for improper duration. In a bigger picture, rampant irrational use of antibiotics has led to antibiotic resistance in community. As a responsible citizen, we should avoid irrational use of antibiotics to avoid spreading antibiotic resistance.

Q9

**Can I use over-the-counter (OTC) cough syrup or combination cough fever syrup for my child?  
Can I use adult medicine half dose?**

- Over-the-counter (OTC) products are meant for milder common diseases for safer age group like adults who can indicate symptomatic deteriorations. OTC products are not safe for home use for children without doctor's advice.
- Combination cough cold syrups are made with mixture of multiple ingredients in rational or irrational combinations. Taken without proper medical advice, they may turn out to be toxic for your child. To be safe OTC combination cough fever syrups are not advisable for home use without consulting a doctor. At home, one can use only paracetamol safely.
- Most adult medicines are meant for adult use. Appropriating them for child age and weight may have high risk of wrong medicine and wrong dose which can come with serious consequences. Thus, such use is not advised.

Q10

**My 3-month-old infant has fever and cough. Is it same as my 5-year-old child with fever and cough?**

Generally, for any disease, *smaller the baby, more severe is the disease*. In a 5-year-old child with cough and fever, if child is comfortable between fever, not having rapid breathing, alert and playful, taking food and water well, and passing urine well one can say, he is safe and can take telephonic consultation from doctor.

A 3-month-old baby is a small infant. Due to lesser reserves in baby, poor resistance power, difficulties in observation at home, there is serious risk of rapid deterioration; thus, doctor has to be consulted immediately. This baby may need to be hospitalized for observation when in doubt. Thus, cough and fever in the 3-month-old baby is an emergency situation.