

Indian Academy of Pediatrics (IAP)



## GUIDELINES FOR PARENTS

# Suspecting a Serious Bacterial Illness



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### 10 FAQs on SUSPECTING A SERIOUS BACTERIAL ILLNESS

1. What is serious bacterial infection (SBI)?
2. Why is it important for parents to know about this?
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6. What are the "red flags" that parents should know?
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8. What are the Do's and Don'ts for parents if any child has symptoms suggesting serious bacterial infection?
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10. What are the early symptoms or signs that parents can recognize for serious bacterial infections?

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## Suspecting a Serious Bacterial Illness

**Q1**

### What is serious bacterial infection (SBI)?

A serious bacterial infection is an infection where vital organs such as the brain, lungs, heart, kidneys, bones, and joints are involved and affected with or without infection in the bloodstream. It usually starts with fever.

**Q2**

### Why is it important for parents to know about this?

- Unlike viral infections such as common cold which resolve spontaneously in most children, SBI can lead to significant impact on vital organs and long-term sequelae affecting the child with possible handicap or permanent impairment of normal activities of the child.
- Early recognition and appropriate antibiotic therapy can prevent not only these sequelae but also reduce the risk of prolonged hospitalization and death.
- Knowledge and awareness about these SBIs is essential for early diagnosis and intervention.

**Q3**

### What is sepsis?

Sepsis is a probable life-threatening condition caused by the body's response to an infection. Normally, body releases certain chemicals into bloodstream to fight an infection. Sepsis occurs when the body's response to these chemicals goes haywire and cause multiorgan system damage.

**Q4**

**What are the common serious bacterial infections in infants and children?**

- Meningitis (infection affecting the covering of brain often affecting the underlying brain)
- Pneumonia (severe lung infection)
- Osteomyelitis and septic arthritis (Bacterial infection of bones and joints)
- Urinary tract infection (Kidney infection called “pyelonephritis”)
- Bloodstream infection (bacteremia) and sepsis (bacteremia with severe manifestations)
- Abscess (Pus-containing swellings in the body or organs)

**Q5**

**What are the symptoms of serious bacterial infections?**

- Fever without any other symptom (if above 102°F) may be the only manifestation in infants younger than 3 months of age. The following symptoms if present should alert parents to the possibility of SBI:
- No movement at all/movement when only stimulated/swollen joints/bones
  - Feeding poorly or not feeding at all
  - Temperature  $\geq 102^{\circ}\text{F}$  or  $< 96^{\circ}\text{F}$
  - Severe chest indrawing
  - Convulsions (Fits)
  - Bluish discoloration of lips
  - Persistent vomiting (defined as vomiting following three attempts to feed the infant within 30 minutes, the infant vomits after each feed)
  - Extreme lethargy/irritability/inconsolable crying
  - Poor response to stimulation

### Q6

#### What are the “red flags” that parents should know?

- Decreased fluid intake
- Decreased urine output (reduction in wet nappies <6/day)
- Grunting
- Floppy (flabby) or irritable
- Persistent temperature for >5 days despite use of fever medications
- Increase in respiratory rate and work of breathing (subcostal or intercostal recession)
- Nonblanching petechial rash (reddish/purplish spot)
- Cool peripheries
- Increased smelly or dark-colored urine
- Bulging fontanel (soft bulging spot on top of head)
- Reduced interest in external stimuli
- New onset of seizures (fits)
- Complicated birth or requirement for special care baby unit

### Q7

#### Which children are prone to develop such serious bacterial infections?

- In general, young infants and children in the categories mentioned below are more prone to get SBI due to lack of maturity of their immune system.
- Low birthweight babies, children with immunodeficiency, malnutrition, chronic disease involving various organ systems, unimmunized children, and congenital anomalies are at risk of SBI.

Q8

**What are the Do's and Don'ts for parents, if any child has symptoms suggesting serious bacterial infection?**

**Do's**

- Immediately contact a doctor/Healthcare worker by phone, if suggested take child to hospital.
- Pain or fever relief with paracetamol, if available at home in appropriate dose.
- If vomiting give medicine for that as advised by doctor and give plenty of liquids.

**Don'ts**

- Self-administration of antibiotics.
- Tepid sponging or rubbing with cologne or camphor or oil.
- Delay in seeking medical attention.

Q9

**What should the parents do to prevent such serious bacterial infections?**

- *Vaccinations:* Vaccines such as *H. influenza*, pneumococcal, MMR, chickenpox, poliomyelitis, and diphtheria, pertussis (whooping cough), and tetanus (DPT) vaccines are helpful in prevention of certain SBI.
- Exclusive breastfeeding for first 6 months and then continuing for minimum of 1 year will boost immunity and prevent infections including serious gastrointestinal and respiratory infections.
- Good nutritious and balanced diet improves immunity.
- Avoiding contact for young children with people having infectious illnesses is an important step.
- Maintain proper hand hygiene.
- Avoid bottle-feeding.

## Q10

### What are the early symptoms or signs that parents can recognize for serious bacterial infections?

- Fever particularly below the age of 36 months with or without focus is a danger sign more so if it is  $>102^{\circ}\text{F}$ .
- Red flags, if present along with fever warrant urgent medical attention.