

# Fighting Tuberculous Meningitis under 5

### Risk Factors

- Children <24 months of age
- Immunocompromised
- Foreign-born
- Close contacts with individuals with infectious TB

CDC

### Improving Outcomes

Prompt diagnosis and treatment is essential. Failure to begin treatment swiftly results in poorer outcomes, significant and permanent neurological sequelae, or death.

### Window Prophylaxis

Close contacts to someone with infectious TB who are <5 years of age should receive treatment for latent TB infection once TB disease is excluded by chest radiograph and symptom review. Treatment is needed even when a TST and/or IGRA is negative. A second TST and/or IGRA should be administered 8 - 10 weeks after the last exposure to infectious TB.

CDC

### Assessment & Medical Evaluation

Tuberculous meningitis is more difficult to diagnose than other forms of bacterial meningitis, but thinking of TB as a possibility and rapid screening using various methods in order to make a proper diagnosis is crucial.

- Tuberculin Skin Testing (TST)
- Interferon Gamma Release Assay (IGRA)
- Physical Examination
- Chest X-Ray
- Lumbar Puncture (for ALL infants <12 months with suspected TB)
- MRI with Contrast



### Outcomes for TB Survivors

On average, 54% of children who survived tuberculous meningitis developed neurological sequelae.

*The Lancet, 2014*

### Percent Risk of Disease by Age

0-1: 43%  
1+: 24%

*Miller, 1963*

### Watching for Early Signs & Symptoms

0-1		2+		
Lethargy	Vomiting	Excessive Sleepiness	Vomiting	Motor/Sensory Abnormalities
Excessive Sleepiness	High Fever	Irritable	Poor Feeding	High Fever
Constant Crying	Poor Feeding	Persistent Headaches	Constant Crying	Cranial Nerve Findings

HEARTLAND NATIONAL TB CENTER  
THE UNIVERSITY OF TEXAS AT TYLER HEALTH SCIENCE CENTER

**For Medical Consultations:**  
(800) TEX-LUNG or (800) 839-5864  
<http://www.heartlandntbc.org/consultation>

Note: Young children may not be able to share or verbalize these symptoms when asked, so collaborating with care givers will be imperative.