

**Bulging Fontanelle** refers to a condition where the soft spot (fontanelle) on a baby's skull appears swollen, tense, and raised above the surrounding skull bones. It is a clinical sign that often indicates increased intracranial pressure (ICP) and requires prompt evaluation.

—

### ### Key Characteristics - Normal Fontanelle:

1. Soft and slightly concave.
2. Pulsations may be felt due to underlying blood flow.

### - Bulging Fontanelle:

1. Firm and raised above the skull level.
  2. May be accompanied by other symptoms such as irritability, lethargy, or vomiting.
- 

### ### Common Causes 1. Increased Intracranial Pressure:

1. **Hydrocephalus:** Excess accumulation of cerebrospinal fluid (CSF) in the brain's ventricles.
2. **Infections:**
  1. Meningitis.
  2. Encephalitis.
3. **Trauma:** Head injuries causing swelling or bleeding.
4. **Intracranial Hemorrhage:** Bleeding within the brain or ventricles.

### 2. Infections and Inflammation:

1. Severe systemic infections like sepsis.
2. Brain abscess or localized infections.

### 3. Other Conditions:

1. Tumors or space-occupying lesions.
  2. Metabolic disorders causing swelling (e.g., hyponatremia).
- 

**### Associated Symptoms** - Vomiting. - Poor feeding. - Lethargy or excessive sleepiness. - Seizures. - Irritability or high-pitched crying. - Rapid head growth.

—

### ### Evaluation 1. Clinical Examination:

1. Palpation of the fontanelle for bulging and tension.
2. Assessment of other signs of increased ICP.

### 2. Neuroimaging:

#### 1. Ultrasound (Cranial):

1. Initial imaging for infants due to its non-invasive nature.
2. Can identify ventriculomegaly or intracranial lesions.

## 2. **MRI/CT:**

1. Detailed imaging to diagnose the underlying cause.

## 3. **Lumbar Puncture (if indicated):**

1. Evaluates CSF for infection or pressure changes, if not contraindicated by imaging findings.
- 

## ### **Management - Emergency Action:**

1. A bulging fontanelle is a medical emergency if associated with severe symptoms.
2. Immediate referral to a pediatrician or neurologist.

## - **Treatment Based on Cause:**

1. **Hydrocephalus:** Surgical intervention (e.g., ventriculoperitoneal shunt or endoscopic third ventriculostomy).
  2. **Infections:** Antibiotics, antivirals, or other antimicrobial treatments.
  3. **Trauma or Hemorrhage:** Neurosurgical intervention if needed.
  4. **Tumors:** Oncological evaluation and treatment.
- 

### **Prognosis** - Dependent on the underlying cause and the speed of diagnosis and treatment. - Prompt intervention typically leads to better outcomes, especially in reversible conditions.

Let me know if you'd like further details on specific conditions or treatments!

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

[https://neurosurgerywiki.com/wiki/doku.php?id=bulging\\_fontanelle](https://neurosurgerywiki.com/wiki/doku.php?id=bulging_fontanelle)

Last update: **2025/01/04 12:36**

