



**Kids Brain Doc**

Dr. Laila Mohammad

# **BESSI**

## **(Benign Enlargement of the Subarachnoid Spaces in Infancy)**

### **Patient Packet**



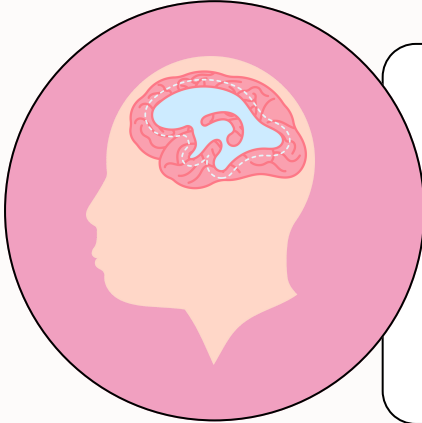
# CEREBROSPINAL FLUID (CSF)



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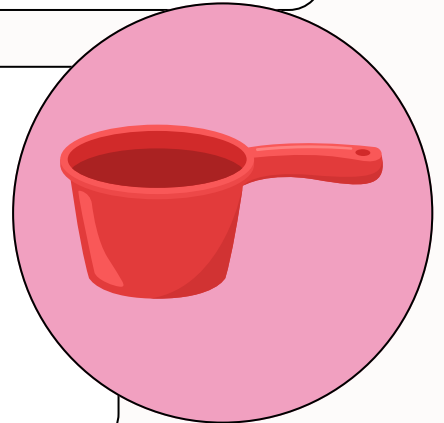
## 01. WHAT IS IT

A clear liquid that surround the brain and spinal cord. It cushions the brain, protects it from injury, and helps move nutrients and waste in and out.



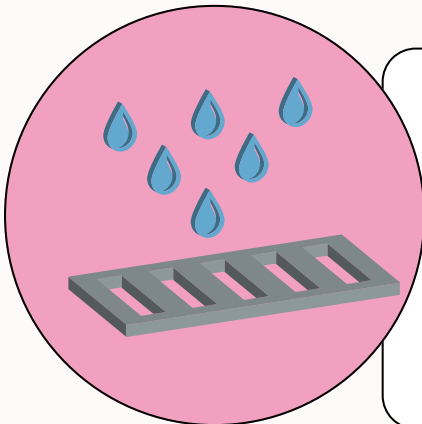
## 02. HOW MUCH DO WE HAVE

You produce about 15-20 mL (1 Tablespoon) every hour. Over a whole day, that's about 500 mL (or 2 cups). However, at any one time, there's only about 150 mL (or 1/2 cup) around the brain and spinal cord.



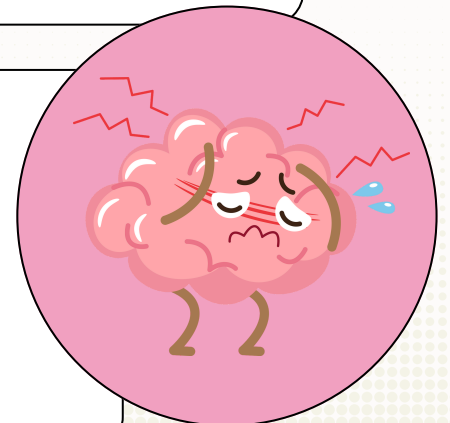
## 03. WHERE DOES THE EXTRA GO?

Since your body only needs a set amount, the "extra" drains away through the brain's natural gutters (*arachnoid granulations*), which carry the fluid back into the bloodstream to keep everything in balance.

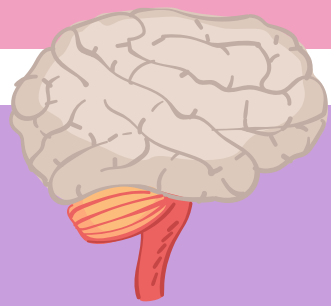


## 04. WHY IS THIS IMPORANT

If too much CSF builds up or doesn't drain well, it can put pressure on the brain. This might show up as headaches, vomiting, sleepiness, irritability, a bulging soft spot, or a quickly growing head size. This would need treatment.



# Diagnosis: BESSI



## What is it?

BESSI is a condition where the fluid spaces around your baby's brain are bigger than normal. It's the most common reason for babies to have larger heads (*macrocephaly*).

## Who does it affect?

It typically impacts healthy babies, especially boys, who are between 3 and 18 months old.



## How did my child get it?

It's believed to be linked to how a baby's brain and fluid spaces grow. It might just be a normal part of brain development or because immature arachnoid villi can't drain the CSF. It's not caused by anything parents did or didn't do.

## Is it Harmful?

It doesn't harm the brain and usually gets better as your child grows. The head size should stabilize by 18 months, but it may lead to delays in motor skills like rolling over, sitting up, and walking. These issues often resolve by age 2.



## What is the Treatment?

Most kids just need regular check-ups and sometimes another scan of the head. Treatment is only needed if there are signs of more pressure on the brain.



# Recovery & Follow-Up



## ACTIVITY RESTRICTIONS

- Babies and toddlers with BESSI can usually play, crawl, and walk without limits
- Just take normal precautions to avoid bumps, as you would with any child

## HOME CARE

Encourage safe play and monitor for symptoms like repeated vomiting or changes in alertness

## FOLLOW-UP

Your doctor may recommend follow-up visits and, in some cases, repeat imaging to make sure the fluid spaces are getting smaller with growth



## LONG-TERM CARE

- Most children outgrow BESSI by 18 months, and do not have long lasting effects.
- Motor delay can occur, like rolling over, sitting up, and walking. This typically resolves by age 2.
- No long-term follow-up is required.

