

# CSF Leak (Leak of Fluid Around the Brain and Spine)

Understanding your symptoms—and knowing when to get help

## What is a CSF Leak?

A CSF leak happens when the fluid that surrounds and protects your brain and spinal cord starts to **leak out from where it is supposed to stay**.

To explain this simply:

Your brain and spinal cord are surrounded by a clear fluid called **cerebrospinal fluid (CSF)**. This fluid acts like a cushion. It protects the brain, supports it, and keeps everything working smoothly.

- 👉 This fluid is contained within a protective layer (like a sealed covering).
- 👉 If there is a small tear or opening in this layer, the fluid can leak out.

This is called a **CSF leak**.

## Where Can a CSF Leak Occur?

A CSF leak can happen in two main areas:

### 1. Around the brain (skull base)

- Fluid may leak through the nose
- Sometimes through the ear

### 2. Along the spine

- Fluid leaks internally
- This can lead to headaches and pressure changes

## Why Does a CSF Leak Happen?

There are several possible causes:

- **Injury or trauma** (e.g. head injury, accident)
- **After surgery** (especially brain or sinus surgery)
- **Spontaneous leaks** (happen without a clear cause)
- **Increased pressure inside the head**
- **Weak areas in the skull base or spine**

👉 Sometimes, patients are surprised because the leak can happen without any obvious trigger.

## Why is a CSF Leak Important?

A CSF leak matters because:

- It reduces the protective fluid around the brain
- It can cause uncomfortable symptoms
- It may increase the risk of infection if left untreated

👉 The good news:

**It is a treatable condition, especially when identified early.**

## Symptoms to Watch For

Symptoms vary depending on where the leak occurs.

### 1. Clear Fluid from the Nose or Ear

This is one of the most noticeable signs.

- Watery, clear fluid dripping from the nose
- Usually from one side
- May increase when bending forward
- May have a salty or metallic taste

👉 Patients often say:

**“It feels like a constant runny nose, but it’s different.”**

### 2. Headaches

Headaches are very common, especially in spinal CSF leaks.

- Worse when sitting or standing
- Improves when lying down
- Feels like pressure or heaviness

👉 A key feature:

**Position-related headache (better when lying down)**

### 3. Neck Pain

- Stiffness in the neck
- Discomfort at the back of the head

#### 4. Hearing or Balance Changes

- Ringing in the ears
- Feeling of fullness in the ear
- Dizziness

#### 5. Vision Changes

- Blurred vision
- Sensitivity to light

#### 6. General Symptoms

- Nausea
- Fatigue
- Difficulty concentrating

#### Warning Signs

Seek medical attention if you experience:

- Persistent clear fluid from the nose
- Headaches that worsen when upright
- Symptoms following head injury or surgery
- Fever with fluid leakage
- Neck stiffness or severe headache

👉 These could indicate a CSF leak or possible complications.

#### When Should You See a Neurosurgeon?

You should consider specialist evaluation if:

- You have continuous clear nasal discharge
- You have unexplained positional headaches
- Symptoms started after injury or surgery
- You have been diagnosed with a CSF leak
- Symptoms are persistent or worsening

👉 A key point:

**Not all runny noses are harmless—especially when persistent and one-sided.**

Early evaluation helps confirm the diagnosis and guide proper treatment.

## How is a CSF Leak Treated?

Treatment depends on:

- The location of the leak
- The cause
- Severity of symptoms

### 1. Conservative (Non-Surgical) Treatment

Some CSF leaks can heal on their own.

Treatment may include:

- Bed rest
- Drinking adequate fluids
- Avoiding straining or heavy lifting
- Medications to relieve symptoms

👉 This approach is more common for spinal leaks.

### 2. Blood Patch (For Spinal CSF Leaks)

A common and effective treatment.

- A small amount of your own blood is injected near the leak
- The blood forms a “patch” that seals the leak

👉 Often provides quick relief of symptoms.

### 3. Surgical Repair

Surgery is recommended when:

- The leak does not heal
- There is continuous fluid leakage
- There is a risk of infection
- The leak is at the skull base

#### Minimally Invasive Endoscopic Repair (Through the Nose)

- No external cuts
- Done using a camera through the nose
- The leak is sealed using special materials

👉 This is a highly effective and commonly used technique for skull base CSF leaks.

#### Traditional Surgical Repair

- Used in selected cases

- Involves direct access to the leak

## **Frequently Asked Questions**

### **“Is this dangerous?”**

A CSF leak should be evaluated early, but with proper treatment, it is manageable.

### **“Will it heal on its own?”**

Some leaks do, but others require treatment. Proper diagnosis is important.

### **“Is surgery always needed?”**

No. Many cases can be treated without surgery.

### **“Is the surgery safe?”**

Modern techniques, especially endoscopic methods, have made treatment safer and more precise.

## **Why Choose a Specialist?**

A CSF leak may seem simple—but it involves the **brain’s protective system**, so accuracy matters.

Choosing the right specialist ensures:

- Correct diagnosis
- Identification of the exact leak location
- Selection of the most appropriate treatment
- Use of advanced minimally invasive techniques

As a **Consultant Neurosurgeon**, I specialise in:

- Skull base surgery
- Endoscopic (through the nose) techniques
- Brain and spinal conditions

My approach is:

- ✓ Clear explanation in simple language
- ✓ Careful assessment of your symptoms
- ✓ Use of advanced imaging and techniques
- ✓ Minimally invasive treatment whenever possible
- ✓ Ongoing support throughout recovery

👉 Most importantly:

**Your comfort, safety, and recovery are always the priority.**

## **A Reassuring Thought**

A CSF leak can feel confusing and worrying.

But it is important to remember:

- 👉 It is a **treatable condition**
- 👉 Many patients recover well with the right care
- 👉 Not all cases need surgery
- 👉 Early diagnosis prevents complications

You do not have to live with ongoing discomfort or uncertainty.

## **Take the First Step Toward Relief**

If you are experiencing:

- Persistent clear nasal discharge
- Headaches that change with position
- Symptoms after injury or surgery

👉 It is important to get it checked.


A consultation can help you understand:


- Whether this is a CSF leak
- What is causing your symptoms
- What treatment is best for you

## **Book Your Consultation**

 **Dr. Ravindran Karupiah**

Consultant Neurosurgeon

-  Subang Jaya Medical Centre
-  ParkCity Medical Centre
-  Columbia Asia Hospital Setapak

 **WhatsApp: +6017-504 4389**

- 👉 Don't ignore persistent symptoms
- 👉 Early treatment can prevent complications
- 👉 The right care can restore comfort and peace of mind

**Take the first step today—your brain health matters.**