



UW Medicine

## 中耳炎

### 中耳感染

本手冊解釋感染會如何影響中耳，以及治療中耳炎使用的各種手術。

中耳炎（中耳感染）是一種常見病。它可能會引起短期的聽力障礙。兒童患上中耳炎，可能會導致言語和學習遲緩。

通常使用抗生素來治療中耳炎。但是如果抗生素無效，則可能需要動手術。手術的目的是糾正任何聽力障礙，並幫助預防將來耳朵感染。

### 耳朵是怎樣工作的

耳朵由 3 部分組成：

- **外耳**，其作用是收集聲波
- **中耳**，其作用是擴大聲能，並將振動的聲音傳送進內耳
- **內耳**，其作用是將聲波轉變為神經脈衝，然後將這些脈衝發送到大腦



耳朵感染是嬰幼兒的常病，但也會發生在成年人身上。

### 中耳感染

中耳內含有空氣。當我們周圍有聲音時，空氣讓耳鼓和 3 塊小骨（聽小骨）有空間產生振動。感染會使中耳變得腫脹或充滿液體。這會減少耳鼓和聽骨的振動，從而導致聽力障礙。當腫脹和液體退後，聽力通常可以恢復正常。

### 耳咽管

耳咽管從每只耳朵的中部延伸至咽喉的後部。這條管通常排出中耳內產生的液體。如果耳咽管堵塞了，液體就會積聚起來並引起感染。

耳朵感染在嬰幼兒中比較常見，因為他們的耳咽管比較容易堵塞。耳朵感染也可以在成年人中發生，但沒有嬰幼兒那樣常見。

任何引起耳咽管腫脹或堵塞的誘因，都會導致在耳鼓後面的中耳內積聚起更多液體。一些導致這種現象的誘因是：

- 過敏症
- 感冒和鼻竇感染
- 出乳牙時產生的過多的粘液和唾液
- 扁桃腺感染或肥大（扁桃腺是上齶上面的組織，幫助嬰兒對抗感染）
- 煙草的煙霧或其他刺激物

## 症狀和治療

中耳炎的症狀包括從耳朵裏流出液體、耳痛和發燒。這些症狀通常是用抗生素來治療的。

## 手術

中耳炎的手術稱為鼓膜切開術。手術是在醫生的診室或在診所內進行，採用局部麻醉。

你的醫生會在你的耳鼓內開一個小切口，插入一條細小的管子，這條管子叫做鼓室通氣管。手術只需要很短時間。置入管子後，你要留在診室裏約 15 分鐘，以確保沒有任何問題。

手術後或置入管子後，會立即將耳內的液體引流出來。液體流出時，使用一塊濕的軟布來清潔耳朵的外部。

## 鼓室通氣管

鼓室通氣管讓液體從中耳流出來。這會改善你的聽力，還有助於抗生素對抗感染。

通氣管置入 2 – 3 周後，你的醫生將會為你檢查通氣管，然後每隔 6 個月檢查一次，如果管子還在耳朵裏的話。在你前來復查時，醫生還將檢查你的聽力。

你將不會感覺到耳內有管子，其他人不會看見這些管子。置入管子後，每當你嘴嚼，你的耳朵可能會發出響聲。有時候，管子會使你微感不適。如果出現這種現象，可以服用醋氨酚 (Tylenol) 來減輕這種不適。

## 使用抗生素耳藥水

手術後，使用抗生素耳藥水：每只耳朵滴 3 滴，每天 3 次，滴 3 至 5 天。之後，任何時候只要耳朵有液體流出，就要再次使用耳藥水。

如果使用耳藥水 3 至 4 天後仍有液體流出，請打電話告訴你的醫生。

## 使用抗生素耳藥水

1. 用手握住藥水瓶 5 分鐘，讓藥水暖和。
2. 將耳朵輕輕地往上和往後拉，然後將藥水滴進耳道。
3. 用手按耳朵前面幾次，以便將藥水推進耳道。
4. 滴完耳藥水後，你可以往耳道裏塞進一些棉花，以吸幹流出的液體。

如果將耳藥水放進冰箱裏，通常可以保存至少 1 年。確保檢查藥瓶標籤上的有效日期。如果藥水過期了，切勿使用。

通氣管留在耳道裏越久，你的聽力會改善得越好。但是，也存在著管子會刺穿（穿孔）耳鼓的較大風險。如果這種情況發生了，可以在門診做一個小手術來修復耳鼓。

## 預防耳朵進水

- 在洗澡或洗頭的時候，用矽膠或蠟耳塞保護你的耳朵。你可以在大多數藥房裏買到這些耳塞，價錢很便宜。
- 在耳朵裏置有鼓室通氣管時，避免游泳或潛水。
- 諮詢你的醫生，看訂制耳模對你是否會有幫助。
- 如果有水進了你的耳朵：
  - 滴 3 到 4 滴抗生素藥水進你的耳朵，以減少感染的可能性。
  - 使用電風筒並設定到低溫，將耳朵裏的水吹幹。
  - 諮詢你的醫生。也許要將你的管子取出來，但這種情況很少發生。

### 有任何問題嗎？

你的問題很重要。如果你有任何問題或疑慮，請致電你的醫生或其他保健提供者。

- UWMC 耳鼻喉 – 耳科和聽力科: 206-598-7519
- HMC 耳鼻喉 – 頭頸外科中心: 206-744-3229

## Otitis Media

### *Infection of the middle ear*

*This handout explains how an infection affects the middle ear and the different types of surgery that may be used to treat it.*

*Otitis media* (middle ear infection) is a common health problem. It may cause short-term hearing loss. In children, it may cause speech and learning delays.

Antibiotics usually cure an otitis media infection. But if they do not, surgery may be needed. The purpose of surgery is to correct any hearing loss and help prevent future ear infections.



*Ear infections are common in infants and children, but they also happen in adults.*

### How the Ear Works

The ear has 3 parts:

- The **outer ear**, which collects sound waves
- The **middle ear**, which increases the sound energy and transmits the sound vibrations to the inner ear
- The **inner ear**, which transforms the sound waves into nerve impulses and sends them to the brain

### Middle Ear Infections

The middle ear contains air. This gives the eardrum and 3 tiny bones (*ossicles*) room to vibrate when there are sounds around us. Infection can cause the middle ear to become swollen or fill with fluid. This reduces how much the eardrum and the ossicles can vibrate and causes hearing loss. When the swelling and fluid are gone, hearing often returns to normal.

### The Eustachian Tube

The eustachian tube runs from the middle of each ear to the back of the throat. This tube usually drains fluid that is made in the middle ear. If the eustachian tube becomes blocked, fluid can build up and cause infection.

Ear infections are common in infants and children because their eustachian tubes become clogged easily. Ear infections may also occur in adults, but not as often as they do in children.

Anything that causes the eustachian tubes to become swollen or blocked causes more fluid to build up in the middle ear behind the eardrum. Some things that cause this are:

- Allergies
- Colds and sinus infections
- Excess mucus and saliva that is produced during teething
- Infected or overgrown *adenoids* (tissue above the roof of the mouth that helps infants and young children fight infections)
- Tobacco smoke or other irritants

## **Symptoms and Treatment**

Symptoms of otitis media include drainage from the ear, ear pain, and fever. These symptoms are usually treated with antibiotics.

## **Surgery**

Surgery for otitis media is called a *myringotomy*. It is done in the doctor's office or clinic using local anesthetic.

Your doctor will make a small incision in your eardrum and insert a tiny tube called a *tympanostomy* tube. This takes only a short time. You will stay in the office for about 15 minutes after the tube is placed to make sure that there are no problems.

Ear drainage may occur right after surgery or any time the tubes are in place. When drainage occurs, clean the outside of your ear with a soft, damp washcloth.

## **Tympanostomy Tubes**

Tympanostomy tubes allow fluid to drain from your middle ear. This should improve your hearing and will also help the antibiotics fight the infection.

Your doctor will need to check the tubes 2 to 3 weeks after they are placed, and then every 6 months while they are in place. Your hearing will also be checked at these visits.

You will not be able to feel the tubes, and people will not be able to see them. Your ears may pop when you chew after the tubes are inserted. Sometimes the tubes cause mild discomfort. If this happens, acetaminophen (Tylenol) will relieve the discomfort.

## Using Antibiotic Eardrops

After surgery, use antibiotic eardrops: 3 drops in each ear, 3 times a day, for 3 to 5 days. After that, any time there is drainage from the ear, start using the drops again.

Call your doctor if the drainage does not stop after you have used the eardrops for 3 to 4 days.

## Using Antibiotic Eardrops

1. Warm the bottle by holding it in your hand for 5 minutes.
2. Gently pull your ear up and back and insert the drops into the ear canal.
3. Press on the front of your ear several times to push the drops down into the ear canal.
4. You may insert cotton into your ear after using the drops to absorb any drainage.

The drops are usually good for at least 1 year if they are stored in the refrigerator. Be sure to check the expiration date on the bottle label. Do not use the drops if they are expired.

The longer the tube stays in place, the more your hearing may improve. But, there is also greater risk of puncture (*perforation*) to your eardrum. If this occurs, it can be repaired with a minor outpatient operation.

## Protect Your Ears from Water

- Use silicone or wax earplugs to protect your ears while you are bathing and washing your hair. You can buy these earplugs at most drugstores at a low cost.
- Avoid swimming or diving underwater while you have the tympanostomy tubes in your ears.
- Ask your doctor if custom-made ear molds would be helpful for you.
- If water gets into your ears:
  - Place 3 to 4 antibiotic drops in your ears to decrease the chance of infection.
  - Use a hair dryer on low setting to evaporate the water.
  - Talk with your doctor. Rarely, your tubes may need to be removed.

### Questions?

Your questions are important. Call your doctor or health care provider if you have questions or concerns.

- UWMC Otolaryngology –  
Otology and Audiology:  
206-598-7519
- HMC Otolaryngology –  
Head and Neck Surgery  
Center: 206-744-3229