

Appendix 6

Treating Ear Infections Using Chinese Medicine
An Instruction Booklet for Parents

This booklet may be downloaded free of charge from the following website:
www.philosophical-tools.com

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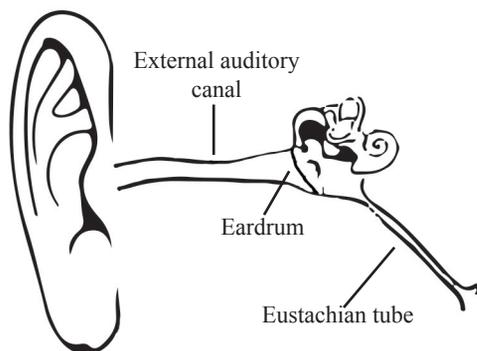
I. The Western View

1. The Anatomical Structure of the Ear

The middle ear is the internal part of the ear located beyond the eardrum and is drained by means of the Eustachian tube. When the Eustachian tube is blocked, the middle ear is transformed into a sealed cavity in which thriving bacteria and viruses can cause infection and the development of inflammation.

2. Inflammation of the Middle Ear as Defined by Western Medicine

Western medicine defines acute inflammation of the middle ear as a common medical condition in children characterized by redness of the eardrum, varying levels of pain originating in the ear, and effusion in the middle ear that manifests itself as a protrusion or ear discharge (otorrhea). The two primary treatment methods are immediate antibiotic treatment and delayed treatment, administered 48-72 hours later, according to necessity. Decision regarding treatment is made primarily in accordance with the age of the child and his or her clinical condition, as well as the ability to conduct proper follow-up in the community.



3. How is inflammation of the middle ear diagnosed?

The condition is diagnosed using an otoscope – a medical device used to examine the ear canal and the eardrum. An otoscope examination enables the examiner to assess the color of the eardrum, whether it is inflamed or exhibits the redness indicative of the early stages of inflammation, whether there is a protrusion reflecting the build-up of fluids in the middle ear, and whether the level of accumulated fluids can be observed beyond the eardrum. In practice, however, the examination is no simple matter, as reflected in the fact that a physician who is a family practitioner might diagnose an infection of the middle ear, only to have a nose, ear, and throat specialist reach a contradictory diagnosis the very same day.



Otoscope

4. What possible complications can develop as a result of a middle ear infection?

In rare cases, the infection can spread to the brain or the bones surrounding the ear.

5. What is ear redness?

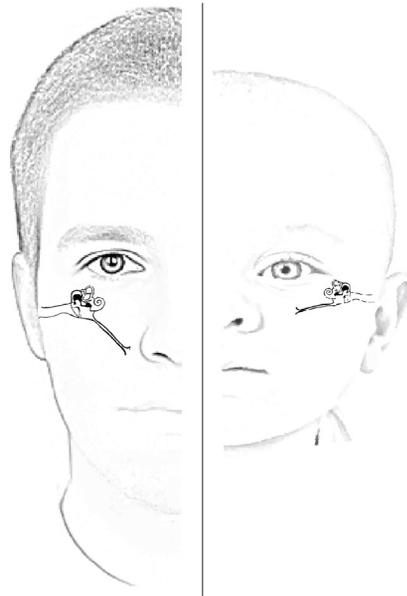
Ear redness is a condition in which redness in the ear may be indicative of the possibility or the beginning of a process of infection. It is not a condition that requires the prescription of antibiotics, but for some physicians it is a sufficient basis to do so, based on the assumption that an infection will develop in any event.

6. What is fluid in the ears and how is it related to ear infections?

Fluid in the ears is a condition caused by a blocked Eustachian tube. In this condition, the air trapped in the ear diminishes due to the diffusion of oxygen to the tissue surrounding the middle ear. The vacuum produced results in the absorption of fluids from these tissues and their accumulation in the tympanic cavity. Sometimes, the fluids contain bacteria or viruses which can result in the development of infection, and at other times, the fluid is not infected, but its build-up can be detrimental to the flexibility of the eardrum and cause temporary hearing loss. Fluid in the ears is sometimes related to middle ear infections, but not always. In most cases, fluid in the ears in children above two years of age is characterized more by a decline in hearing than by infection of the middle ear.

7. Why are ear infections more common in young children?

The relatively high frequency of ear infections in young children is caused by the wider internal facial structure of babies, in which the canal is more horizontal and its flow is less effective. As the child gets older, the face grows longer and the canal becomes more vertical, enabling the fluids to descend more easily toward the pharynx.



Eustachian tube - connecting the middle ear and the pharynx

8. Treating the Infection Using Conventional Medicine

The medication of choice that Western medicine prescribes in cases of inflammation of the middle ear is antibiotics, based on the assumption of bacterial infection. In mild cases, treatment may begin with antibiotic drops to be administered to the ear canal. There are two approaches to how to treat ear infections. One is conservative, and calls for the immediate administration of antibiotics in all cases of infection. The other is less conservative, and recommends waiting three days based on the assumption that most infections resolve themselves without treatment.

9. *What's the problem with frequent antibiotic use?*

In recent years, there has been an increase in public awareness regarding the need to reduce our use of antibiotics. One of the many reasons leading to this conclusion is the resistance developed by bacteria after frequent exposure to antibiotics. Inflammation of the middle ear is a common reason for the prescription of antibiotics for children under two years of age. However, antibiotics harm all the bacteria in the body, thereby disrupting the body's delicate balance and leaving other non-bacterial substances such as fungi, viruses, and parasites free to thrive. They also harm the bacteria of the digestive system, which play an important role in the initial breaking down of food within the human body, and impair the digestion process. Many parents notice a decline in their child's appetite during and following antibiotic treatment. For this reason, it is important to use probiotic (which contain a high concentration of intestinal bacteria) after antibiotic use in order to allow the recovery of the bacteria in the intestines.

10. *What does conventional medicine recommend when antibiotics do not solve the problem?*

In the first stage, the recommendation is to make long-term prophylactic use of antibiotics with the aim of preventing the development of infection.

When the child is suffering from great pain and the accumulation of large quantities of puss, conventional medicine recommends a myringotomy, or the intentional piercing of the eardrum. This is a painful treatment during which an incision is made in the eardrum to enable the release of puss and the fluids pressing on the eardrum and the walls of the inner ear. The

procedure is usually followed by an alleviation of the discomfort. However, the procedure itself is extremely painful and may not be performed without anesthesia. This treatment should be avoided whenever possible due to the severe trauma it causes some children. Moreover, the fact that it is aimed only at providing localized relief is good reason to consider other approaches to solving the problem.

The next stage is to insert a plastic tympanostomy tube, also known as a "grommet," into the incision made in the eardrum to prevent it from healing and closing up. The hole facilitates the steady flow of fluids from the middle ear to the outer ear. The insertion of a grommet is a full-fledged surgical procedure requiring general anesthesia, after which care must be taken to protect the ear from external fluids. The grommets are left in the ear until they fall off naturally, usually after more than one year.

All the methods discussed above are extreme in nature and constitute aggressive approaches to solving the problem. They have a severe impact on the child, due either to the type of treatment (surgical) or to its systemic effects on the body (preventative use of antibiotics). Although parents sometimes have no choice but to use one of these methods, it is preferable to first exhaust all other possibilities.



Timpanic tube inserted to the eardrum

11. Does treating an ear infection with Chinese medicine necessarily prevent the need for antibiotic treatment?

Chinese medicine can be practiced concurrently with all other types of treatment. Although the use of antibiotics disrupts bodily balance, there is nothing preventing treatment by means of Chinese medicine and the concurrent use of antibiotics to treat an acute condition in the event that one develops. It is important to work closely with conventional medicine. If your child is being treated by Chinese medicine and is concurrently diagnosed with an ear infection by your family physician, it is recommended to inform the physician that the child is being treated by Chinese medicine and to ask to delay the prescription of antibiotics for a few days to allow the body to contend with the problem without the use of antibiotics. If the situation is not severe and the child does not have a high fever, most physicians are happy for the opportunity to try to avoid the use of antibiotics.

II. Inflammation of the Middle Ear according to Chinese Medicine

1. What causes ear infections according to Chinese medicine?

Chinese medicine regards ear infections as typically stemming from a few possible kinds of imbalances. One imbalance is always dominant, but the condition usually involves a combination of factors. The most common imbalances involved are:

a. Internal heat

b. Accumulation of Phlegm in the body

c. Energetic weakness of the ear and the energies by which it is nourished

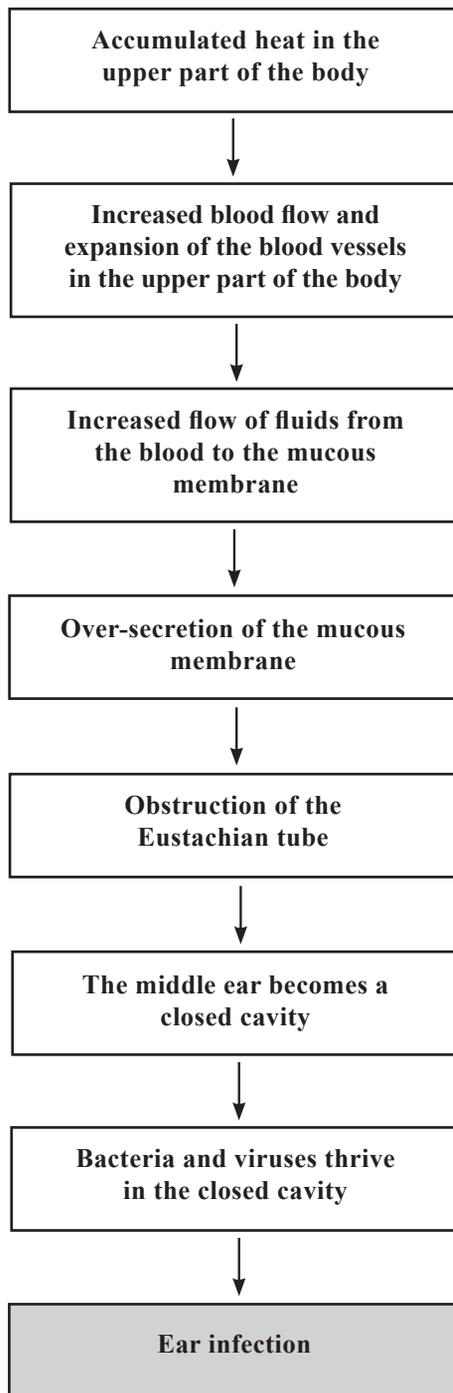
a. Internal Heat

The term “heat” used here does not refer to body temperature that can be measured by a thermometer but rather to a kind of heat that is characteristic of most children even when they are healthy. Children with internal heat are characterized by some of the following attributes: tendency toward high fever while ill, high levels of activeness, redness of the face, pungent smelling bowel movements, night sweats, thirst, difficulty falling asleep, and baby colic at a very young age.

Most experience internal heat as a byproduct of their rapid growth process. Children naturally respond to internal heat by balancing it by means of childhood illnesses, most of which involve skin lesions that enable internal heat to be released from the body, similar to the heat sores that often appear around the lips during the recovery from heat-related illnesses. Such illnesses allow the heat to drain out of the body and

in this manner serve to balance the body as a whole. In modern times, vaccinations prevent the contraction of childhood illnesses, and some children are therefore unable to easily dispose of their internal heat. The processed, excessively fatty, energetically warming foods typical of the Western World today also throws fuel on the fire.

Internal heat causes increased heat in the upper part of the body which, in turn, results in the increased flow of blood in this area. The increased heat and flow of blood cause the blood vessels in the upper part of the body expand and facilitate the increased flow of fluids from the blood to the mucous membrane lining the respiratory tract. The result is excess secretion of the mucous membrane which may block the Eustachian tube and turn the middle ear into a sealed cavity and a fertile breeding ground for bacteria and viruses.



b. Accumulation of Phlegm in the Body

According to the Chinese conception, phlegm is the product of weakness of the energy that nourishes the digestive system. Therefore, the production of phlegm in the body is related to the improper functioning of the digestive system and to diet. Phlegm tends to accumulate in the upper respiratory tract.

We have to strengthen our digestive system to enable it to digest food without producing phlegm. To do so, we can use acupuncture, herbs, and, most importantly, a proper diet. The topic of proper diet is addressed in a separate booklet titled “Diet and the Treatment of Excess Phlegm.”

By virtue of its nature as a systemic killer of bacteria, antibiotics also harm the bacteria in the intestines, some of which play a role in breaking down food. Harming these bacteria weakens the digestive system, and one outcome is increased phlegm-production. Or, to use Chinese medical terminology, antibiotics cool the digestive system and disrupt the heating and transformation of food.

c. Energetic Weakness of the Ear and the Energies by Which It Is Nourished

According to the Chinese medical approach, the body’s inability to remove fluids from the middle ear is caused by a weakness of KID *qi*. KID *qi* is related to the ears, and Chinese medicine points to the anatomical similarity between the ears and the kidneys. Energetic weakness of the KID can be accompanied by a weakness in the ability to stimulate the flow of the fluids in the ears, which can result in the development of ear infections. It is important to emphasize here that it is not a question of the kidneys themselves but of the energy to which they give expression.

2. What are the principles of treatment according to Chinese medicine?

According to Chinese medicine, the combination of weakness of the ear, excess phlegm, and heat results in an infection of the ear. Therefore, treatment of this condition is based on the following three principles:

1. Dissipation of the heat, in the event that the child is suffering from internal heat.
2. Dissipation of the phlegm and strengthening of the digestive system.
3. Strengthening of the ear region and the KID *qi* that nourishes the ear.

3. Why, according to Chinese medicine, do antibiotics aggravate the problem?

Antibiotics kill bacteria in the body, thereby slowing down the body in general and the digestive system in particular. When the digestive system is weakened by antibiotic use, the body secretes phlegm, which blocks the Eustachian tube. In some cases, we observe a trend of increasing antibiotic use, which is caused by increasing weakness of the digestive system and increased phlegm production.

Another reason for this trend is the cooling affect of antibiotics. Western medicine recognizes that large quantities of antibiotics can be detrimental to liver function. In Chinese medicine, this condition is characterized as “cold in the liver” In order to balance this cold, the body produces heat, which again results in infection, and so on and so forth. In the short-term, antibiotic use resolves the infection. In the long-term, however, it becomes an internal cause of illness and may encourage a series of future infections.

4. What are Chinese medicine’s chances of successfully treating an ear infection?

As no orderly studies have been carried out on this subject, we are unable to answer this question using statistics. However, it is important to remember that the older the child, the greater the chances that he or she will recover from the infection naturally. Overall, Chinese medicine succeeds in resolving the problem in a large percentage of children, thanks to the combined use of a number of treatment methods. In addition to acupuncture, which balances the body on a systemic level, every patient is treated using herbs, natural eardrops, dietary recommendations, and recommended massages that are also helpful in resolving the problem. It is important to remember that Western medicine as practiced in Western Europe acknowledges the fact that, even without treatment, many ear infections resolve themselves naturally, especially when assisted by the simultaneous use of five other methods of natural treatment.

III. Coping and Methods of Treatment

1. Acupuncture

2. Herbs

3. Ear Drops

4. Dietary Recommendations

5. Recommended Massages

1. Acupuncture

Acupuncture facilitates systemic balancing of the body at all layers, including the emotional layer. Emotional imbalance is one of the most common causes of generation of excess heat, which is the primary cause of inflammation of the ear.

2. Herbs

Medicinal herbs enable parents to carry out preventative treatment the moment they suspect the development of inflammation. Ear infections are treated with a formula that cools the head area. “Cooling” here refers to the herbs’ capacity to reduce viral or bacterial infectious activity. The formula contains anti-bacterial herbs and functions in a manner similar to antibiotics, but on a local, non-systemic level.

3. Ear Drops

The ear drops used in are natural. They consist of antibacterial oils and are used to prevent, treat, and relieve discomfort.

4. Dietary Recommendations

A proper diet is of great importance to reducing the amount of phlegm in the body. Many parents are apprehensive about the need to change their children’s diet, especially if the child is older than two years of age and even more so if he or she has siblings. However, using a moderate approach and an understanding of the foods we eat and serve, we can provide our children with alternatives relatively easily.

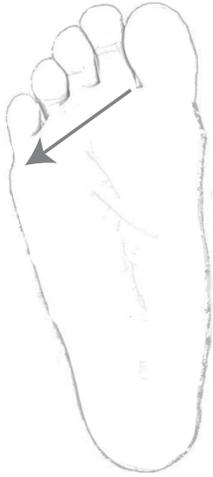
See: *Dietary Instructions and the Treatment of Excess Phlegm m- An Instruction Booklet for Parents*, p.437.

5. Recommended Massages

Massages are a highly recommended way of streaming energy to the ear region. The “streaming of energy” is an abstract description of the flow of blood, augmented nerve activity, and activity of the lymphatic system and the immune system in the area. The ear region can be treated by means of other parts of the body, including the foot (reflexology) and the Chinese meridians.

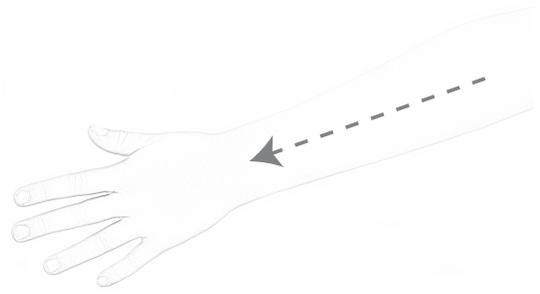
The massages require less than five minutes a day to perform.

On a preventative level, it is recommended to perform a regular daily repertoire of four kinds of massages on both sides of the body. Their order and the time of the day at which they are performed are unimportant. However, if the child objects, it is best not to insist and instead to try again later.



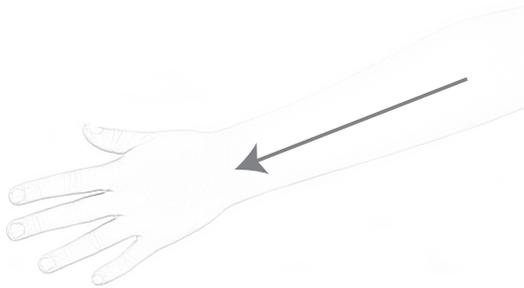
Massage No. 1

Use one continuous rubbing motion with medium pressure along the base of the four outer toes. Perform 50 times.



Massage No. 3

Deep, gentle pressing motions along the outer part of the central forearm between the two bones, from the elbow to the wrist. Perform 5 times using medium pressure.



Massage No. 2

Perform on the outer part of forearm, from the elbow to the wrist, using medium pressure. Perform 50 times.



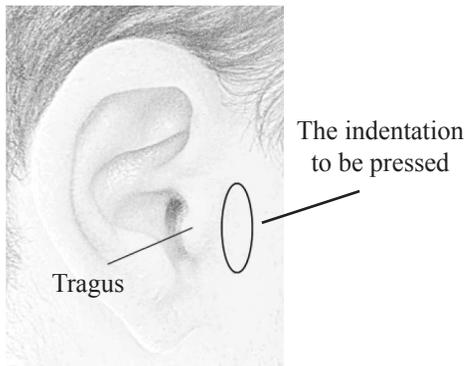
Massage No. 3

From the indentation behind the earlobe, around the ear along the scalp, to the tragus (the prominent cartilage at the front of the ear). Perform 50 times on both sides of the head.

6. Miscellaneous

Initial Examination of the Ear

Press on the indentation at the front of the ear (in front of the tragus). When there is no problem in the ear, most children tend to tilt their head toward the finger used to press the spot. In the presence of infection or some other problem, children tend to tilt their heads quickly away from the finger. This diagnosis is not precise, but it gives an idea of whether the problem is in the ear.



Oil to Soothe the Ear

Warmed olive oil with onion or garlic juice can be used for this purpose. Squeeze juice from an onion or a clove of garlic and add two drops to a tablespoon of olive oil. Administer a few drops to each ear three times a day.

In the event of piercing of the eardrum with discharge from the ear, the oil should not be administered directly into the ear canal. Instead, soak a piece of cotton in oil and insert it into the ear canal. Children often remove the cotton after a few minutes, but this amount of time is sufficient.

Potato to Cool the Ear

This remedy is suitable for ear infections. Place room-temperature pieces of cooked potato on the front of the ear. The potato will heat up as a result of the transfer of heat from the infected ear.

Elevate the Upper Body While Lying Down

Lying down increases the pressure in the middle ear caused by the fluids and increases pain. Changing the angle by elevating the upper body can ease the pain.

IV. What to Do In the Case of a Suspected Ear Infection

Mild Suspicion

In the event of mild suspicion of an ear infection (based on rubbing or tugging of the ear, trouble sleeping, or any other symptom suspected as indicating the onset of an ear infection), take the following three actions for a period of three days:

1. Use natural eardrops three times a day.

2. Ensure a proper diet – Although it is recommended to ensure that your children always eat a proper diet, this is sometimes not possible. However, in the event of even the slightest suspicion of an ear infection, ensuring a proper diet is essential.

3. Make sure to perform the recommended massages on a daily basis – In the case of children who suffer from recurring ear infections, it is recommended to perform the massages on a daily basis, although most parents find it difficult to do so. When an ear infection is suspected, however, it is strongly recommended to perform at least one, if not two massages per day.

After three days, the child's condition should be reassessed.

Heavy Suspicion

If parents feel that their child is indeed suffering from an ear infection, or in the event of a physician's diagnosis of inflammation or redness of the eardrum, or in the event of a spike in the child's fever for any reason, the following two measures should be taken in addition to the three measures listed above:

4. Herbs – Three times a day for three days.

5. Phone your Chinese medicine practitioner - for an update and consultation. Do not hesitate to call, as phone communication is part of the treatment. The practitioner will be grateful for the update and will be happy to offer guidance.

If there is no improvement within one or two days, the herbs dosage should be increased in consultation with the practitioner. If there is still no improvement, the child should be brought into the clinic for emergency acupuncture treatment.

After three days, the child's condition should be reassessed.

Closely following the above instructions will greatly reduce the chance of needing to use antibiotics.

Good luck!!