

DR. WILLIAM MICHAEL GREENE, MD

Tubes Information



PROVIDENT
— EAR, NOSE & THROAT —

PROVIDENT ENT

**101 S Venture Drive
Greenville SC 29615**

Phone: 864-284-9869

Fax: 864-284-9869

E-mail: info@providentent.com

This booklet contains information addressing everything from why your child needs surgery to how long we expect the tubes to be in place. We hope it will answer most of your questions regarding the surgery process and what to expect over the following year with tubes. We look forward to working with you throughout this process!

Ear Tube Surgery Checklist:



PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869

Fax: 864-284-9869

E-mail: info@providentent.com

- Schedule surgery with our office.
(864) 284-9869
- Have a pre-op phone assessment; the Surgery Center will call you.
- Get your exact time of surgery. This is determined by patient age the day before surgery. The Surgery Center will call you in the evening and give you the time.
- Pick up your prescriptions. Post op drops are faxed to the pharmacy you have on record at our office with several refills.**
- Come back for your two-week post op check. This is scheduled by our office when surgery is scheduled (**pg 20**)
- Tubes usually extrude (come out) on their own in about a year. Check ups every six months are recommended.

What are Ear Tubes?



Ear Tubes are small surgical implants used to treat and prevent certain ear disorders, most commonly recurrent ear infections, chronic serous otitis (“fluid”), or Eustachian tube dysfunction.

They are small plastic or metal tubes, with a flange on both ends, designed to hold a hole open in the eardrum (tympanic membrane). They stay in a small slit-like incision in the eardrum much like a button. The hole is usually about 1mm in diameter.

T-tubes are larger tubes, with a larger flange, usually just on one end. They are designed to stay in place longer, often up to three years, and are sometimes misleadingly referred to as “permanent tubes.”

PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869

Fax: 864-284-9869

E-mail: info@providentent.com

Ear tubes are also known as:

PE tubes

Tympanostomy tubes

Myringotomy tubes

Grommets (in Britain)

DR. WILLIAM MICHAEL GREENE, MD

What are Ear Tubes?



PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869

Fax: 864-284-9869

E-mail: info@providentent.com



Steel and plastic tubes (left)

T-Tube (right)

Indications for Ear Tube placement



It is important to remember that no two patients are identical, and there is no hard and fast recipe for when to place ear tubes. In some cases it is equally reasonable to treat ears non-surgically for a time in hopes that infections or fluid will resolve, or to go ahead with surgical tube placement.

Generally, in children, there are two main categories of disease for which tubes may be recommended:

1. **Recurrent Middle Ear Infections.** A rough guideline would be a recommendation for placement of tubes if there are 4 ear infections in 6 months. (Or a persistent ear infection, despite antibiotics)

2. **Chronic Middle Ear Fluid.** Historically, tube placement was recommended for 3 months of persistent middle ear fluid. More recently, with more knowledge about the effects of fluid on language development, tubes are often recommended after 6-8 weeks of persistent fluid.

PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869

Fax: 864-284-9869

E-mail: info@providentent.com

DR. WILLIAM MICHAEL GREENE, MD

Indications for Ear Tube placement



PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869
Fax: 864-284-9869
E-mail: info@providentent.com



Normal



Middle Ear Infection



Fluid

Fluid in the middle ear is also referred to as Serous Otitis Media.

Indications for Ear Tube placement



PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869

Fax: 864-284-9869

E-mail: info@providentent.com

In addition, the decision to place tubes may be affected by many other factors, such as:

- * Complications from infections, such as febrile seizures (seizure from high fever from ear infections).
- * Failure of infections to respond to antibiotics.
- * Allergy or other reactions to antibiotics.
- * Known hearing loss from fluid or infection.
- * Known delay in speech development.
- * Known predisposition to ear infections, such as Down Syndrome or Cleft Palate.

DR. WILLIAM MICHAEL GREENE, MD

Tubes Placement Surgery



In younger teens and children, tubes are placed under general anesthesia in a hospital or surgery center. It takes less than five minutes to make a tiny incision through the ear drum, suction fluid from the middle ear, wash the middle ear out with saline, and place a tube to keep the incision open for ventilation.

The term “general anesthesia” just means that the child falls asleep. In almost all cases, there is no IV placed and the patient breathes on his/her own the whole time. The medicine used to induce sleep is extremely safe, and clears from the body very rapidly.

PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869

Fax: 864-284-9869

E-mail: info@providentent.com

Recovery— The Post Op Period



As a result of the very rapid anesthesia, your child may appear disoriented or very upset for a few minutes after surgery. This is normal. Usually, the child will not even remember this “excitement phase.”

There is little to no pain from tube placement, and your child will need Tylenol at most. (If an adenoidectomy is performed simultaneously, your child may need a stronger pain medicine- see page 16.)

Your child may eat and drink almost immediately upon waking up, though we recommend starting with clear liquids.

By the day after surgery, your child should be able to return to his/her normal activities.

PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869

Fax: 864-284-9869

E-mail: info@providentent.com

Drops



PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869

Fax: 864-284-9869

E-mail: info@providentent.com

You will be prescribed drops for use after tube placement, and will likely get a sample on the day of surgery. **Using the sample drops given to you, place 2 drops in each ear tonight, tomorrow morning, and tomorrow night.** After that you can keep the drops to use in case of ear drainage.

In the future, if there is drainage from the ears, you will need to use drops until the drainage stops, plus one day for good measure.

Tips on using drops for ear drainage:

- * Use about 5 drops
- * Massage the drops into the ear to churn them together with any drainage.
- * You will not disturb tube placement by using drops.
- * Do not hesitate to use drops several times a day if a large amount of drainage is noticed.

Typically, your prescription for drops is **faxed in to your pharmacy** the day before surgery. You should have **unlimited refills** for a year.

Drainage



Most people never experience ear drainage after tube placement, but it is nevertheless common. Sometimes drainage occurs immediately, but may occur at any time while the tubes are in place, or as they extrude (come out). Drainage might be mucus, pus, blood, or any mixture of these. (**Wax** does not count as drainage, and is also normal and healthy.)

Whether right after tube placement, or a year later, I recommend aggressive use of your antibiotic drops in the case of ear drainage.

Tip: Make an appointment for about 3 days after drainage starts, so that if it is getting worse instead of clearing, your primary doctor or I can consider prescribing an oral antibiotic.

PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869

Fax: 864-284-9869

E-mail: info@providentent.com

Water in the Ears



PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869
Fax: 864-284-9869
E-mail: info@providentent.com

Every child is different, and opinions differ widely on whether you can get water in the ears after tube placement. I recommend water avoidance only if it seems to be a problem. By problem, I mean either :

- 1) your child has discomfort when water gets in the ears, or
- 2) water exposure seems to promote drainage from the ears and/or infections. It is my belief the most children tolerate clean water at bath time and in pools, and that it is unnecessary to routinely wear plugs unless your child has one of the problems stated above.

Avoidance of lake water, river water, etc. in the ears is recommended.

DR. WILLIAM MICHAEL GREENE, MD

Ear Plugs



Wax or silicone ear plugs often work fine. The idea with those is to make a ball bigger than the ear canal opening and form it to cover the opening.



PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869

Fax: 864-284-9869

E-mail: info@providentent.com

If needed, \$20 custom ear plugs are also available through our office. If going to be used regularly, these may be preferable as your child can hear through them and typically tolerate them better than the wax plugs. Plus, they float.

Follow Up



PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869

Fax: 864-284-9869

E-mail: info@providentent.com

Follow up

A two-week post-op check is scheduled at the time of surgery scheduling. We also recommend a hearing test and re-check at 3 months. Thereafter we recommend that a physician look at your child's tubes every 6 months. This can be your pediatrician, family doctor, or your ENT.

It is not uncommon for a primary care physician to refer you back for a re-check as the tubes come out or just afterwards.

Do tubes need to be removed?

Generally, no.

The tubes should extrude as the eardrum grows back behind the tube and pushes it out. (Tubes usually last about one year.) It then works its way out with the wax. Rarely, tubes are removed if they outlive their usefulness, or fail to extrude.

Complications



PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869
Fax: 864-284-9869
E-mail: info@providentent.com

The number one *complaint* about tubes is drainage, which in about 1 out of 20 children is as common as runny noses. About 3 out of 4 never see drainage.

About 2% of the time, a small hole called a perforation is left in the eardrum after a tube comes out. This may heal on its own, or may need to be repaired with a myringoplasty or tympanoplasty. If a tympanoplasty is necessary, I recommend treating the ear with observation as if a tube were still in place until age 7, then repairing the eardrum. (By age 7, the Eustachian tubes are nearly as mature as an adult's.)

Rarely a small hearing loss is noticed with tubes. This is far less than that caused by fluid in the ears, and should be temporary, resolving once the eardrum heals.

Scarring is a potential risk of tubes, but is much less common from tubes as compared with scarring from infections.

A *cholesteatoma* is a collection of skin in the middle ear that can come from perforations, including tubes.

Does my child need an adenoidectomy?



PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869

Fax: 864-284-9869

E-mail: info@providentent.com

Adenoidectomy is the removal of the tonsil-like tissue behind the nose next to the Eustachian tube openings. This procedure requires about 10-15 minutes longer than simple tube placement.

Recovery, while much easier than recovery from a tonsillectomy, is usually more involved than with plain tube placement. Some children need narcotic pain medicine and have bad “cold” symptoms for about a week.

I feel that studies support doing an adenoidectomy in a child needing a second set of tubes. This markedly reduces the number of children who need more than two sets of tubes.

Remember, the majority of children who have tubes need only one set, and they are often under age 12 months at the time of tube placement.

Instructions after Adenoidectomy



PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869

Fax: 864-284-9869

E-mail: info@providentent.com

Prescriptions for narcotic pain medicine, Phenergan (promethazine), and antibiotics are FAXED to your pharmacy we have on record.

Post operative congestion is the most common symptom after an adenoidectomy and may last up to 2 weeks. Cold and sinus symptom medications do not typically work well for this type of congestions. It may take up to 6 weeks to see the benefits of the surgery—resistance to colds, less congestion, etc.

Low grade fevers to 101 F are common and usually respond to fluids and the pain medicine.

There is usually minimal pain after an adenoidectomy alone. About half of the patients never need the narcotic pain medicine and get by with Tylenol alone.

Tips about Narcotic Pain Medicines



PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869

Fax: 864-284-9869

E-mail: info@providentent.com

- * **TYLENOL IS IN THE PAIN MEDICINE.** It is the limiting factor for how much you can take. Please do not mix Tylenol and the narcotic pain medicine.
- * Narcotics are the strongest cough suppressants.
- * The flavor can be disguised well with strawberry syrup (Nestles, etc.).
- * You may take any over the counter laxative for constipation.
- * You should take your Phenergan (promethazine) for nausea or vomiting as needed.
- * Once the narcotic is not being used it is generally safe to return to school/work.
- * Fill your prescriptions early and call our office before 4:00 PM so if there is any confusion about the medications we can help!

DR. WILLIAM MICHAEL GREENE, MD

Surgery Locations



PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869

Fax: 864-284-9869

E-mail: info@providentent.com

We do surgeries at one of three locations based on the type of surgery you are having and scheduling convenience. They are all located within 1/2 mile of our office.

Upstate Surgery Center, 864-458-7141

10 Enterprise Boulevard #109

Greenville SC 29615

St. Francis Eastside, 864-675-4000

125 Commonwealth Drive

Greenville SC 29615

www.stfrancishealth.org

Center for Special Surgery, 864-527-7700

209 Patewood Drive, Suite 300

Greenville SC 29615

www.centerforspecialsurgery.com

General OR Information



PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869

Fax: 864-284-9869

E-mail: info@providentent.com

PLEASE READ THE FOLLOWING CAREFULLY

1. You / Your child is scheduled for:
 - Bilateral Myringotomy with Tubes:
CPT code 69436
 - Adenoidectomy, Under age 12:
CPT code 42830
 - Adenoidectomy, Over age 12:
CPT code 42831
2. Your OR date is _____ AT:
 - Upstate Surgery Center
 - St. Francis Eastside campus
 - Center for Special Surgery
3. You will be asked to arrive early the morning of surgery. You will receive a phone call the business day prior to surgery with the exact time to arrive at the outpatient center where your procedure is scheduled.

General OR Information



PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869

Fax: 864-284-9869

E-mail: info@providentent.com

4. A nurse from the surgery center will call one to two weeks prior to surgery to either do a pre-assessment over the phone or schedule one in person. They will ask for medical information pertinent to planning anesthesia and related to your surgery.
 5. There will be separate fees for the surgeon, surgery facility, and anesthesiologist. We will call your insurance regarding authorization for surgery but we suggest that you should also call to ask for information regarding your deductible, co-insurance, and covered benefits. The CPT code listed one page before may assist you when talking with your insurance company.
 6. We are happy to answer any questions you may have that this booklet has not covered. Your follow up appointment is:
-

Mission Statement



With any surgery, there is the risk of an unforeseen catastrophic complication, but the chance of a very severe complication from ear tube placement is very remote.

Our Mission Statement:

Provident ENT exists to provide excellent Otolaryngology– Head and Neck Surgery care for the Greenville community. This means providing consistently respectful, professional, compassionate ENT care to patients, the highest quality consultant resource for referring physicians, and a superb work environment where professional and nonprofessional staff can enjoy exercising their gifts and talents.

It is an honor to take care of you
and your family.

PROVIDENT ENT

101 S Venture Drive
Greenville SC 29615

Phone: 864-284-9869

Fax: 864-284-9869

E-mail: info@providentent.com