These instructions are designed to inform you in an attempt to keep you safe after your surgery. We hope you take this information seriously, read it completely, and address any concerns with your doctor before surgery. Serious harm or death can occur from taking medications or following instructions incorrectly.

Tonsils: Tonsils are of lymph node-like tissue located on each side of the back of the throat. Removal of these is called a tonsillectomy.

Adenoids: Adenoids are lymph node-like tissues located in the back of the nose (nasopharynx), behind the soft palate. Removal of these is called an adenoidectomy. Tonsillectomy and adenoidectomy (adenotonsillectomy or T&A) may be recommended because the tonsils and adenoids are enlarged and block the upper airway (causing breathing difficulty or obstructive sleep apnea). Children ages 2-5 have the highest rates of obstructive sleep apnea (and adenotonsillectomy)!

- Tonsillectomy may be recommended to decrease recurrent or chronic tonsil/throat infections or relieve obstruction.
- Adenoidectomy may be recommended to help decrease ear infection frequency or improve nasal breathing.

#### **BEFORE SURGERY**

You may bring your/your child's favorite Gameboy, iPad or similar video device to use in the preoperative area. The hospital has free Wi-Fi. These distraction devices have been shown to keep kids calm in the minutes leading up to surgery. Be sure the device is in a protective case.

- For Young Patients: Talk to your child about the surgery in words he/she will understand. Do some internet searches, take a tour of the hospital, and read them a children's book such as Good-bye Tonsils! (By Craig Hatkoff, Juliana Hatkoff, and Marilyn Mets; published by Picture Puffin Books, 2004). Plan for your child to take 7-10 days
- For Adult Patients: Plan to take 10 calendar days off. You may feel like going back to work/school sooner than that, but just plan for the worst case scenario.

#### PRE-OPERATION PRECAUTIONS FOR TONSILLECTOMY

→ Stop ALL NSAIDS (aspirin, ibuprofen, Advil, Motrin, Motrin IB, Aleve, etc.), herbal supplements (like gingko Echinacea, chamomile), high dose vitamin E, omega 3 fish oil for 2 weeks BEFORE surgery. These will increase the risk of bleeding during surgery. Tylenol is ok before surgery.

#### THE SURGERIES

# → Surgery Basics of Tonsillectomy & Adenoidectomy

- ✓ Outpatient surgical procedure in patients older than 2.5-3 years old without diagnosed obstructive sleep apnea
   ✓ Surgery time approximately 30 45 minutes
   ✓ Requires general anesthesia (going completely asleep) with an endotracheal (breathing) tube

- ✓ Wake up time 1 ½ 2 hours. After an uneventful monitored recovery, the patient is discharged home.

## → Adenoidectomy Technique

- ✓ Access through the mouth; mouth held open using a metal retractor
- ✓ Soft palate is retracted up while a dental mirror is used to see the adenoids in the back of the nose
- ✓ If done alone, adenoidectomy recovery is usually 2-3 days; usually requires only over-the-counter pain meds
- ✓ Wake up time 1 ½ 2 hours. After an uneventful monitored recovery, the patient is discharged home.

# → Tonsillectomy Technique

- ✓ Access through the mouth; mouth held open using a metal retractor
- ✓ Tonsils are removed from surrounding muscle tissue
- ✓ Surgery site is checked and re-checked prior to concluding the procedure to rule-out potential bleeding areas
- ✓ Recovery is 7 14 days

#### → Other Tips/Comments

- ✓ The mouth retractor can cause temporary tongue numbness, white "skin" / skin sloughing on the tongue, and/or a metallic taste
- ✓ Swelling of the uvula is common after tonsillectomy and goes away in 3-5 days
- ✓ Overnight hospitalization may be required if complications arise post-op (such as poor pain control, a low blood oxygen level in the recovery room, or poor fluid intake), the patient is around 2 years old, or in patients diagnosed with obstructive sleep apnea.

#### **RECOVERY FROM T&A**

Kids often "regress" to an earlier stage of development to cope with the surgery experience. Pediatric recovery time: 7 – 10 days; return to school when they are off narcotic pain medicine, keeping a normal diet, hydration and back to "themselves." No PE/sports until 14 days post-op. Some may recover more quickly. Also, no out of town travel until 14 days after surgery.

# Dehydration is the most common cause of fever, increased pain, and Emergency Room visits after T&A in children.

Daily fluid requirement after surgery		You should triple your normal fluid intake	
Weight	Ounces (1 cup = 8 oz.)		
Under 20 lbs. (10 kg)	30 oz.	1 to 2	
20-40 lbs. (9-18 kg)	30-60 oz.	2 to 3	
40-60 lbs. (18-27 kg)	60-90 oz.	3 to 5	
60-90 lbs. (27-40 kg)	90-130 oz.	5 to 6	
Over 100 lbs. (45 kg)	150 oz.	6-8 IR 3-4 liters	

- The patient's urine should be light yellow to colorless, if not, the patient should drink more fluids.
- Good hydration fluids: water, watered down juice, Gatorade, electrolyte solutions
- Food: Most soft foods are ok. Avoid acidic food (citrus, tomato base) and spicy or scratchy foods.
  - ✓ Milk products may increase mucus thickness, but they're fine if you drink fluids afterwards
  - ✓ Some favorites are ice cream, popsicles, Jell-O, pudding, warm soups, pasta without sauce
  - ✓ Eating and drinking (and talking) is good exercise for the surgery site and helps decrease the pain

#### POTENTIAL COMPLICATIONS

- Fever: Common 5-7 days after surgery up to 101.5 °F is common. Fever above 101.5 °F indicates dehydration.
- Activity: Increase slowly, but get up and walk around at least 3 times a day.
  - o No PE/rough physical activity in children until 14 days post-op. No out of town travel until 14 days post-op.
  - Blood clots (adults): Walk around 3 times a day. While in bed and awake, flex your legs and move your feet.
     This can prevent blood clots forming in the leg veins, a potentially fatal complication of surgery. In general, rest sitting up or reclined and stay as active as you can tolerate after surgery.
- Post-op nausea and vomiting is usually related to anesthesia.
- Snoring or breathing trouble may still be present after surgery due to swelling in the throat. Snoring should subside when the swelling subsides around 7 days after surgery.
- Scabs will form where the tonsils and adenoids were removed. They are thick, white, cause bad breath, and look like an infection. They will fall off between 7-14 days post-op and are swallowed (unwittingly) with food or drink.

#### **BLEEDING**

If bleeding occurs, contact my office, go to the Emergency Room, or call 911.

- Except for small spots of blood from the nose or in saliva, bright red blood or clots are rarely seen.
- The most common time to have bleeding is between 5 and up to 14 days after surgery. There is a 3% risk of bleeding and a 1% risk of needing cauterization for tonsillar bleeding. <u>If patient vomits up dark "coffee-ground"</u> material, this indicates past hidden bleeding.

### **PAIN**

Post op pain usually peaks on between day 5 and 7. This is due to "post-inflammatory" pain.

- All children and adults undergoing a tonsillectomy/adenoidectomy will have mild to server pain in the throat after surgery. This may last up to 2 weeks in some adults.
- Ear pain is common and is referred from the throat. This often occurs as scabs are loosening and may be helped by throat massage and warm compresses (such as a towel warmed in the dryer or a damp towel heated lightly in the microwave). Chewing helps, too age appropriate gum or gummies can help secrete saliva.
- Constipation: (See Medications: Stool Softeners, below) A common, partly preventable side-effect of narcotic pain medicine after surgery.

#### **MEDICATIONS AFTER SURGERY**

- Your maximum discomfort will be during the first 1-10 days after surgery. You may have significant pain even out to 14 days. You will experience throat pain which can get worse 5 days after surgery and you may experience headaches, nasal pain, referred pain in the ears, etc.
- Keep a notebook to record when and how much medicine was given.
- Take the pain medicine as prescribed. DON'T take more pills than prescribed; it can hurt you or even kill you in some cases. Pain medicine is designed to take away SOME, not ALL, of your pain.
- Numbing throat sprays, liquid, or lozenges: These usually DO NOT help and can increase the risk of aspiration (taking food or liquid into the windpipe) because they numb your airway-protective reflexes.
- Anti-nausea medications may be prescribed and taken if needed.

# PEDIATRIC PATIENTS UNDER 6 YEARS OLD

Instructions		Medication	Child Dose	When to take
Primary Pain Medication Start after surgery	$\rightarrow$	Acetaminophen (Tylenol); oral chewable/liquid or rectal suppository	15 mg per kg body weight =	Take every 4 hours around the clock. DO NOT take more than 6 doses in 24 hours. 2-12 years old: max 75 mg/kg/day

#### PEDIATRIC PATIENTS 6 YEARS AND OLDER

Instructions		Medication	Child Dose	When to take
Primary Pain Medication Start after surgery	$\rightarrow$	Acetaminophen (Tylenol); as oral chewable/liquid or rectal suppository	15 mg per kg body weight =	Take every 4 hours around the clock. DO NOT take more than 6 doses in 24 hours. 2-12 years old: max 75 mg/kg/day; Over 13 years old, <50kg: max 75mg/kg/day; Over 13 years old, >50kg: max 4000 mg/day
Break-through pain medication	$\rightarrow$	Hydrocodone- Acetaminophen liquid (Rx only)	Weight-based dose (see <b>RX)</b> =	When Tylenol is not effective, follow directions on Rx.  Do NOT take plain Tylenol when taking this medication.

#### ADULT PATIENTS / ADULT-WEIGHT PEDIATRIC PATIENTS (USUALLY OLDER THAN 15 YEARS OLD)

Instructions		Medication	Child Dose	When to take
Primary Pain Medication Start after surgery	$\rightarrow$	Acetaminophen (Tylenol)	650 mg (If you have liver problems, check with your doctor.)	Take every 4 hours around the clock. Max dose: 4000 mg in 24 hours
Break-through narcotic pain medication If acetaminophen is not controlling pain, STOP acetaminophen, and START this Rx.	$\rightarrow$	Hydrocodone- Acetaminophen	Read prescription for dosage instructions. Can be mixed in other liquid.	As needed every 4 - 6 hours for moderate pain

#### STOOL SOFTENERS / LAXATIVES / CONSTIPATION

After surgery, many patients are prescribed narcotic pain relievers to help manage post-surgery pain. While these medications can control much of the post-surgery pain, one common side effect is that they create constipation (drier, hard stool). There are over-the-counter medications that, when taken before and consistently after surgery, can decrease the severity of narcotic-induced constipation. We recommend using one of these medications if the patient will be taking narcotic pain medicine postoperatively. Start with Colace a few days before surgery; if no result, stop taking Colace and start taking Milk of Magnesia.

#### 1. Colace (docusate sodium) (stool softener):

- Start a few days before surgery.
- o Children: 2-12 years: 50 mg capsule, 1-3 times per day for up to 1 week
- o Children: 12-18 years: 50 mg capsule, 1-6 times per day for up to 1 week
- o Adult: 100 mg capsule, 1-3 times per day for up to 1 week

### 2. Milk of Magnesia:

- o Children: 2-6 years: 2-10 mL/day of regular-strength liquid by mouth at bedtime or in divided doses
- Children: 6-12 years: 10-30 mL/day (400 mg/5mL) or 7.5-15 mL/day (800 mg/5mL) by mouth at bedtime or in divided doses
- Over 12 years: 30-60 mL/day (400 mg/5mL) or 15-30 mL/day (800 mg/5mL) by mouth at bedtime or in divided doses
- The best way to get a child to take this is to get original/non-flavored Milk of Magnesia and add to chocolate milk or give with chocolate syrup

### **FOLLOW-UP**

Schedule a post-operative appointment for 1-2 weeks after surgery.

# WHEN TO CALL THE DOCTOR

- ✓ Oral bleeding. Oral bleeding can happen up to 14 days after tonsil surgery, and meaningful bleeding is frequently ABNORMAL.
- ✓ Pain not relieved by the medication
- Medication reactions: Hives, rashes, itching, breathing trouble or wheezing
- ✓ Chest pain, chest tightness, chest burning
- ✓ Leg swelling
- ✓ Dehydration
- ✓ Persistent fever over 102.5 °F (taken via ear scan thermometer or similarly accurate device) (not oral temp)