

## RUSH IMMUNOTHERAPY INFORMATION

### Rush/Rapid Desensitization vs. Conventional Build-Up Immunotherapy

Immunotherapy has been shown to be effective treatment for allergic rhinitis, allergic asthma, and venom hypersensitivity in appropriate individuals. Immunotherapy consists of a series of injections (shots) with a solution containing allergens that cause your symptoms. Treatment usually begins with a diluted allergy solution given once or twice a week. The strength and amount of the solution is gradually increased with each dose until the strongest dose is reached, usually considered your maintenance dose. Traditionally, this process can take several months to years of coming in weekly for shots until progressing to getting shots once a month for maintenance and symptom control. Once at that point, shots will continue for approximately 3-5 years, which will have decreased your sensitivity to your allergens (desensitization).

Rush immunotherapy, or rapid desensitization is a variation of the traditional/conventional which “rushes” the initial phase of the treatment. This approach dates back to 1928 when this procedure was first performed by a British physician, John Freeman. During the initial phase of treatment, increasing doses of allergens are given every few hours rather than every few days or weeks. The Rush immunotherapy procedure only accelerates the “initial build up phase”. It is still necessary to continue weekly allergy injections for a period of time, then progressing to shots every two weeks, every three weeks as indicated and then every month. Shots will continue to be given for a period of approximately 3-5 years as evaluated by your physician. The advantage of Rush immunotherapy is that the build up to monthly injections will occur quicker, in approximately 4-8 months, rather than 1-2 years for traditional/conventional immunotherapy.

### Prior to Rush Immunotherapy

Once you have decided to proceed with Rush, it is important to inform your physician. If it has been several months since your last visit/allergy test, then it may be necessary for you to follow up with the physician so a complete evaluation can be done prior to the procedure. There are a few conditions that would prevent a patient from being able to undergo Rush, so it is important that the physician evaluation is done prior to Rush.

Once your Rush has been scheduled, your physician will review your allergy test results and determine what allergens will be placed in your shot serum. Approximately one week prior to your Rush, your allergy serum will be mixed so that you can begin the procedure of immunotherapy. This serum will be billed to your insurance company, and you will be billed for what is not covered. These appointment times are very specific and are limited each day and a last minute cancellation does not allow the office time to fill that appointment.

***Once the RUSH procedure is scheduled, if you cancel your appointment less than 1 week prior you will be charged a \$200 cancellation fee***

***Please be aware that cancelling less than 1 week prior to RUSH may still incur a cost for your allergy serum, as it is usually mixed 1 week before the scheduled procedure.***

### Prior to your scheduled procedure

One of the nurses from this office will call you regarding how you can pick up your Pre-Rush instructions and medications, as well as to answer any questions you may have regarding the procedure. It is important that you are in contact with this office to obtain these instructions and

prescriptions prior to your Rush, since you will need to start taking medications the day before your Rush procedure.

### **The day before your Rush**

While the Rush procedure has been successful for many years, since you are receiving injections of substances that you are allergic to, it is possible that allergic reactions may occur during the procedure. In order to minimize this outcome all patients are pre-medicated prior to the procedure and will continue taking these medications for a total of three days.

For your allergy test it was required that you remain off all antihistamines so that the allergic response is not altered and a reaction would occur if there is a sensitivity to that product. The opposite is the case for Rush. The patient is given several medications to block the allergic response so that the likelihood of an allergic reaction is minimized.

The following medications will be taken for 3 days, starting the day before the Rush:

- Prednisone 30 mg two times/day with a meal. (children 1mg/kg)
- Zyrtec 10mg, 1 tablet in the morning. (children ½ tablet)
- Zantac 150mg, 1 tablet 2 times/day. (children 3mg/kg/day under 12 years old)

Drink plenty of fluids to ensure adequate hydration.

You will need to purchase Zantac and possibly Zyrtec which is available over the counter. You will receive a prescription for Prednisone and an epinephrine auto injector.

### **The day of your Rush**

Eat a healthy breakfast and take your medications. *It is important that you bring your epinephrine auto injector with you on the day of your Rush.*

Please arrive for your procedure at 8:00am. Plan to spend most of the day, until approximately 3-4 pm. You will have access to a TV with a DVD player as well as regular TV channels and wireless internet. Please bring school or office work to keep you occupied. *If you bring movies, please be sure they are appropriate for general viewing as there will be other people in the Rush room.*

Dress comfortably, wearing a short sleeve or sleeveless shirt. The allergy shots will be given in the upper outer aspect of your arms. Both arms will be used, as shots are rotated from one arm to the next. Bring a jacket, blanket, etc. as temperatures tend to fluctuate.

Since you will be here most of the day, plan to bring a LIGHT lunch, snacks and beverages to eat throughout the day. We advise that you do not eat a heavy lunch, our experience has shown that this could increase the incidence of a reaction during the Rush procedure.

### **What to expect when you arrive**

Once you arrive, you will be taken to the procedure room and the nurse will introduce herself to you and your family. Since there is limited space in the procedure room, we ask that you limit any accompanying members to 1 person please. Your vital signs will be measured, a breathing (pulmonary function test) will be performed to evaluate your respiratory status, and an IV will be

started. The IV will be capped as a saline (salt water) lock, and there will be no fluids infusing. This is a precautionary measure and will only be used in the event of a severe allergic reaction for administration of IV fluids or medications.

After all of the above has been completed, you will see your provider and begin getting your shots. Depending on the number of allergens you are sensitive to, you may have 1, 2 or 3 vials of serum. You will receive a shot in 1 or both arms every 30 minutes. Prior to each shot the nurse will measure your blood pressure, pulse, respiratory rate, and listen to your lungs.

You will receive approximately 6-18 shots. Shots will continue for approximately 4 hours. Once you have received your last shot, you will be required to wait an additional 3 hours for observation for any reactions. Since the allergy serum is absorbed slowly, over about 24 hours, the body will continue to absorb and metabolize the serum once shots are completed for the day. The nurse will continue to measure your vital signs.

Once you have waited and your physician is sure that the likelihood of any reaction is diminished, you will be discharged home, after the nurse has reviewed all of the discharge instructions with you and you have been taught how to use the epinephrine auto injector. You will be able to drive home, unless you have had a reaction and received medication that may make you drowsy. In this case we would advise that someone pick you up and drive you home.

You will need to take your medications that evening BEFORE 6pm, to maintain an appropriate level of medication to minimize any reactions to the injections.

### **One week after Rush**

You will come for your first weekly injection. **You must come in before 3pm for this shot only, for every shot after this you may come during regular shot hours. You will be required to wait 1 hour, every other subsequent shot requires a 30 minute wait. You should take an antihistamine the morning you come for your injection. You are also required to bring your epinephrine auto injector with you for this first shot following your Rush.**

### **Six weeks and more after Rush**

You will continue to receive allergy shots every week. You will have an appointment with your doctor six weeks after the Rush to evaluate how your shots are progressing and to discuss your injection schedule. You will continue to receive weekly injections for about six more weeks (about twelve weeks from the time of Rush), then progress to shots every two weeks for a period of time, every three weeks, then once a month. This will occur in approximately 4-8 months. The staff in the injection area will inform you of any change in your injection schedule. At this point you will continue with monthly injections for about 3-5 years.