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General Information: Allergies and Injection Therapy

1. General: You have been allergy tested and have allergies. The specific items which you are allergic to (such as grasses, weeds, dust mite, or food) are called allergens. You have chosen to receive allergy shots.

Your treatment vials are made up of various concentrations of allergens. They are not drugs or medications. Each patient's vial is individually mixed in accordance with allergy testing results. Once allergy injections are started, your dosage is gradually increased to the maintenance dose, which is the strongest dose which can be given. Our goal is to gradually strengthen your allergy shot to the maintenance dose which is then continued for a prolonged period.

Allergy shots are given in the office once a week, and everyone must wait for 30 minutes after every shot, but once you reach your maintenance dose, you may give yourself allergy shots at home. How quickly you reach the maintenance dose depends upon the severity of your symptoms and your ability to come each week for your shots.

Choosing to undergo allergy therapy is a long term commitment. In order to fully benefit from allergy treatment, you should receive allergy shots for three to five years. Allergy shots decrease your immune response toward allergens but do not affect your immune response toward bacteria or viruses. Unlike medications which are only effective as long as you are taking them, allergy shots have long term benefits even after discontinuing them, and allergy shots are much more effective than medications in controlling your symptoms. Allergy shots change your immune system so that it is not activated by common things such as pollens, mold spores, dust particles, or animal dander. This process is called desensitization.

2. Prognosis: We expect you to have gradual improvement of allergy symptoms with allergy injections within 3-12 months. 80-90% of people will have significant improvement. 70% of patients will have longstanding benefits even after discontinuing allergy shots. If you do not feel that you are getting better, you should make an appointment to see Dr. Nofsinger. There may be other factors, such as food and chemical allergies or infections, which need to be investigated.

3. ADVERSE REACTIONS:

LOCAL REACTIONS:

After an allergy injection, you may have some redness and itching at the injection site or you may have no reaction at all. If you have an arm reaction, you should note the size (cm) and duration (24 hours, 3 days, etc.) of the arm reaction, and report this to the allergy nurse prior to your next injection. Arm reactions smaller than a quarter and lasting less than 24 hours are normal. We will weaken your dose if you have large arm reactions.

It is better to tell us about your arm reaction when you come to the office for your next allergy shot, rather than calling and leaving a message. It is our protocol that before getting an allergy shot, the medical assistant will always ask you about any problems you may have had with your last injection. You should tell the staff about your arm reaction at this time.

For bothersome arm reactions, you may put topical steroid or Benadryl cream. You may take an antihistamine before your injection to decrease these local reactions if necessary. A few patients may be unable to receive allergy shots due to large arm reactions, and should consider allergy drop therapy instead.

MILD SYSTEMIC REACTIONS:

Following your allergy injection, you may also develop worsening of allergy symptoms (example: runny nose, congestion, headache, fatigue, cough, shortness of breath.) or flu-like symptoms (fever, fatigue, achiness). It is important to report any adverse reactions to the allergy nurse prior to your next injection. The allergy nurse will weaken your next treatment dose if necessary. It is sometimes difficult to attribute worsening allergy symptoms to the allergy shot because there can be normal fluctuations in your asthma or allergy problems.

To manage mild reactions, take your usual allergy and asthma medications. If your symptoms do not improve, then please call the office for additional recommendations.

SEVERE SYSTEMIC REACTIONS/ANAPHYLAXIS:

It is very unlikely, but possible, that you may develop a life-threatening systemic reaction, called anaphylaxis. Fortunately, it is very unlikely. **The risk of anaphylaxis is 0.005%.** Symptoms of anaphylaxis include: facial swelling, hives, wheezing, throat swelling, difficulty breathing, dizziness, drop in blood pressure, and in rare instance, even death. Anaphylaxis usually occurs within minutes after receiving the allergy injection, therefore, **you must wait in the allergy office for 30 minutes after each injection.** If these symptoms occur after leaving our office, you can self-administer the Epi-Pen, take an oral antihistamine, and go to the nearest emergency room.

You should carry your Epi-Pen and oral antihistamine with you at all times. You should also check the expiration date on your Epi-Pen and keep it updated. Make sure you understand how to administer the Epi-Pen.

4. Contraindication to Allergy Injections:

a). You must discontinue allergy injections if you develop an anaphylactic reaction. These patients should consider allergy drop therapy because there is no risk of anaphylaxis.

b). Beta Blockers and Some Antidepressants (Tricyclic antidepressants and MAO Inhibitors): **You cannot receive allergy injections if you take a beta-blocker** (inhaler, eye drops, or pill form) and some types of antidepressants. **Inform the allergy assistant of any new medications. See the following list of Beta Blockers. These medications increase your risk for anaphylaxis and the medical management is more difficult.**

5. Pregnancy: If you become pregnant during the course of treatment, you may continue receiving your allergy injections with medical clearance from your obstetrician. We will not advance the dosage of the allergy injection until after your delivery. If you are considering getting pregnant, please do not start allergy injections until after your delivery.

ALLERGY INJECTION PROTOCOL

1. Starting Treatment: Prior to your first injection, a vial test is performed as a safety measure. A vial test is performed by making a small wheal on the arm. Please confirm that your name is on the vials before every injection.
2. Weekly allergy injection: You will be given weekly allergy shots, and the dose of each shot will gradually increase until you have completed the vial. The next vial will be stronger, and you will once again, receive a gradually increasing dose each week, until the vial is empty. Eventually, you will reach the maintenance dose which is the strongest dose given. The length of time it takes you to reach the maintenance dose depends upon your sensitivity to the allergen.
3. **30 Minute Wait**: All patients must wait 30 minutes after receiving their allergy injection.
4. Missed doses: It is important to come each week for your allergy injection. If there has been more than a 2 week time lapse from your last injection, your treatment will be backed down to a lower dosage, and it will take you longer to reach your maintenance dose. You need to make a commitment to receive your allergy shots each week.
5. Allergy Injection by your local medical doctor: We would prefer to give you your allergy injections in our office, But if you are unable to travel to our office each week, we can make arrangements with your local family doctor. We will give both you and your physician's nurse complete instructions.
6. Transporting Vials: You may transport the vials without refrigeration for about 8 hours, but hot temperatures will degrade the allergens. In general, the vials should be kept refrigerated.
7. **Colds**: You cannot receive your allergy injection if you have a fever, upper respiratory infection, or flu. Also, do not come for your allergy injection on the same day as the flu shot or other vaccines. Please call the office to reschedule.
8. Duration of allergy injections: You should receive the weekly maintenance dose for at least 3 years before your allergies are successfully desensitized, which means that you no longer have an allergic reaction when exposed to the allergen. There is a special protocol for discontinuing allergy injections.
9. Vigorous exercise: Please do not engage in strenuous physical exercise just before or after your allergy shot. In some people, vigorous exercise can contribute to strong allergic reactions.

10. Environmental Control: It is very important to minimize your exposure to allergens which you are allergic to. For example, if you are allergic to dust mites, you should dust mite proof your home and wear a mask when dusting and vacuuming. If you are allergic to grasses and weed, you should not cut the grass. If you are allergic to cats or dogs, you should try to keep them out of the bedroom at least and frequently bathe them. In reality, allergen avoidance is often difficult.

It is important to try to limit your exposure to allergens just before or after receiving your allergy injections because your exposure may trigger a strong reaction.

11. Food Allergies: We often underestimate food allergies. They can cause upper respiratory symptoms such as congestion, runny nose, ear pressure, and cough. Food allergies can also cause gastrointestinal symptoms, such as throat swelling, oral itching, bloating, diarrhea, and cramping. They may also cause headaches, fatigue, moodiness, visual changes, and night time awakenings. Some people will experience shortness of breath and asthma flare ups when exposed to their allergic foods. It is difficult to identify food allergies because many testing methods are unreliable and symptoms are often dose dependent and delayed in onset.

There are also cross over allergies between some foods and airborne allergens. For example, some people allergic to grasses have a cross over allergy to kiwi, melon, tomato, watermelon, and wheat. Also people who are allergic to ragweed have oral itching when eating melons (cantaloupe, watermelon, honey dew), banana, cucumbers, and lettuce.

12. Total Load: Another important concept is the Total Load. You are more likely to have allergic symptoms if your body is overwhelmed with many allergies. If we can control just *some* of your allergies, you will be able to tolerate others better. Developing allergies is dynamic process. Once you have allergies you are susceptible to developing new allergies. There is also an infinite number of potential allergens in the air, soil, water, and food. There is scientific evidence that allergy treatment will decrease your chances of developing new allergies and even asthma.

12. Taking Medications during Allergy Injections: Ideally, allergy injections should eliminate or significantly reduce your dependence upon allergy medications. It is a good idea to try to stop taking your oral antihistamines or nasal steroid sprays periodically to see if the allergy injections are helping you. It is recommended that you carry some antihistamines with you at all times while receiving allergy injections.

13. Physician Monitoring: You will see Dr. Nofsinger every 3-6 months and be asked to complete an allergy questionnaire each time you advance to a new treatment vial or every 2-3 months. This questionnaire will help monitor your progress.

