

# **ALLERGY INJECTIONS**

## **A REAL SHOT IN THE ARM!**

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There are now many great treatments for allergies – pills, sprays for the nose, inhalers for the lungs, and drops for the eyes. So why take allergy shots?

### **The chemical basis for allergy**

To understand how shots work you have to understand something about allergies. The reason you have an allergy is that your body has developed a substance called an "antibody" to the thing you are allergic to. People who have allergies make these antibodies. People who don't have allergies don't make antibodies. When we test for allergies, we test for these antibodies.

When the antibody meets the "antigen" – the thing you are allergic to (house dust, animal dander, mold spores or pollen granules) – you have an allergic reaction. If the reaction takes place in your eyes, you may have watery/itchy eyes. If it occurs in your nose, you may have sneezing and runny nose. If it occurs in your lung, you may wheeze.

### **How medications work**

Allergy symptoms begin after antibody reacts with antigen. Medications don't stop the antibody-antigen reaction; they work on the chemical changes that follow the allergic reaction. Thus they are directed towards treating the SYMPTOMS of allergy, but they don't do anything about the underlying cause – the production of allergy antibodies and their reaction with antigen.

### **How shots work**

Allergy shots are different. They actually treat the underlying cause by changing the immune system. They "re-program" the immune system by changing antibody production. It is analogous to changing the immune system by giving tetanus or polio vaccination. That's why the process is called "immunotherapy." Allergy injections consist of injecting into the skin extremely small quantities of purified naturally occurring antigens. Unlike medications, allergy injections do not interact with any medications, because they are not drugs. They also do not affect any organ systems such as the heart, lungs, liver or kidney. And the body does not become "immune" to the injections in the way it may to antihistamines.

## **How safe are shots?**

Very. Reactions may occur to shots, but they are rare –just as reactions to allergy medications are rare. But since they can potentially be serious, allergy shots are usually given first in a doctor's office until the patient has had them increased up to a "maintenance" level. At this point, the injection can often be repeated by the patient at home.

## **What works better –medications or shots?**

It depends. Most people respond well to either medications or shots. Some people do better with one form of treatment or the other, and some people need both shots and medications to feel good. Many do best taking shots regularly and using medications only on rare occasions of allergic reactions.

One special case is pregnancy. Here allergy shots may offer a distinct advantage to medications. Almost all medications get through the placenta to the fetus, but allergy injections do not. A pregnant mother can safely stay on her allergy injections with absolutely minimal, if any, risk to the baby.

Just remember, when it comes to immunotherapy, GIVE IT YOUR BEST SHOT!