THE "INFO"-HALER

TAKE IN THE INFORMATION
An easy to understand, informative newsletter for our patients of all ages from the *Allergy & Asthma Associates of Michigan, P.* C.

OUCH! DID I GET A BAD SHOT?

The answer to the question, "Ouch! Did I get a bad shot?" is simply "NO!" Allergy injections given utilizing the correct technique can never be "bad shots." In this issue of the Info-Haler we will discuss the injection process, and how, on rare occasions, the actual injection itself can be a temporary source of pain for some people.

Allergy injections are given utilizing a standardized technique. The correct location for an allergy injection is found by dividing the upper arm into thirds, then utilizing the middle third of the posterior, outer arm along a line from the shoulder to the elbow. The skin should be gently pinched, and the injection given subcutaneously (beneath the skin) into adipose (fatty) tissue. Technically the extract should be injected at a steady pace (to prevent tissue damage), then pressure held to the injection site for a few seconds following the injection (to prevent bleeding). The site should never be rubbed as rubbing irritates the tissue and may cause inflammation. As a patient, the correct way to receive a shot is to hold perfectly still with your arm relaxed comfortably at your side.

Occasionally when patients come in for injections their arms are sore or swollen from previous local reactions. Injections into swollen tissues may cause some injection discomfort to the patient. Methods to minimize that type of injection pain may include applying ice for approximately 10 seconds prior to the injection, then also after the injection, alternating injection sites to include the hips, giving two injection in the same arm and alternating arms each visit to allow swollen arms a longer resting period, splitting large doses of extract in half and giving two smaller injections for everyone large injection to prevent tissue saturation, or adding saline to each injection to flush the extract deeper into the tissues.

Sometimes, however, patients may experience what they describe as a "stinger" injection, where they complain of tingling down the arm and into the hand. The patient's initial thought is often that the injection "hit a muscle." In actuality, however, it is virtually impossible to hit a muscle with the tiny 5/8 inch needle used for the sub-cutaneous injection. The muscles of the upper arm are essentially the deltoid (located high on the shoulder), the biceps (flex your muscles-located on the front of the arm), and the triceps (located deep in the back of the arm). Furthermore, muscles are favored spots for many injections and would not be the source of pain at the time of injection. Instead, injection pain and tingling is a result of sensory receptors in the skin perceiving pain and transmitting signals through nerve pathways to the brain.

Sensory receptors for touch, pain, pressure, heat, and cold are widely distributed in the skin and the connective tissue. The intensity of these senses varies from person to person and also within the same person during their lifetime. In general, the intensity of these sensations decreases with aging. Have you ever wondered why one day you can be bitten by a mosquito and intensely feel the bite, and yet another time never feel a bite at all, but the next day have the welt and the itching that only a mosquito could have caused? Are you the type of sunbather that immediately feels and swats every fly or ant that dares crawl on you, or are you the type of person that falls into a deep sleep and would never know if an entire colony of ants was marching over your body? The differences are caused by the variation in the number of receptors in a person's body, and also in the location of the receptors. Not all parts of the body are equally sensitive. Receptors are distributed in points throughout the body. This point arrangement is called a punctiform (meaning shaped like a point) distribution. Each sensitive spot marks the location of one or more receptors. An area that has few receptors is relatively insensitive, while sensitive areas have a large number of receptors.

The variation in sensitivity to touch can be shown by a two point discrimination test. A compass is used and the distance between its points is varied. The person tested tells whether he feels the compass points separately or as one. The more sensitive the area, the closer together the points of the compass may be and still be felt as two separate points. The tip of the tongue is a very sensitive area of the body, and the back of the neck is one of the least sensitive areas. In other words, the compass points can be very close together on the tongue and be felt separately since the receptors are so numerous in this area. The fewer number of receptors in the back of the neck requires that the distance between the points be great in order to feel them separately.

In summary, the usual cause of acute, temporary pain felt during the injection itself is due to contact ofthe needle or extract with a cutaneous pain receptor of the upper arm; and not a bad shot. Some people, some of the time, are just a little more "sensitive" than others!

Stephanie Cook R.N., B.S.N. Allergy
& Asthma Assoc. of Mi. P.c.

Allergy & Asthma Associates of Michigan, P.e.
Allergy and Clinical Immunology
3600 W. 13 Mile Rd. * Royal Oak, MI 48073 * (248)549-0777