

Greer*Pick*[™]

Optimized Skin
Testing System



PO Box 800
Lenoir, NC 28645
USA

ALLERGY SKIN TEST SYSTEM

The GreerPick™ system is an easy to use, economical system for skin testing of suspected allergic individuals to determine specific allergen sensitivity. The system is designed for use by allergy practitioners who are trained in the application and interpretation of allergy skin tests, and who are trained in the recognition and treatment of adverse allergic reactions should they occur. Before employing the system, users should fully familiarize themselves with the instructions contained herein, and any pertinent data and warnings regarding test antigens.

The system is comprised of the following components as illustrated in *Figure 1* below:



Figure 1

1. The 60-well Greer Tray™, a larger tray that has a maximum of 60 well positions for test antigens.
2. The 40-well Greer Tray™, a medium size tray that has a maximum of 40 well positions for test antigens.
3. The Greer Wells™, supplied in sterile packs and designed to contain the antigens for skin testing.
4. The Greer Picks™, supplied in sterile packs and designed for the application of test antigens to the skin, and to serve as a cap to the Greer Wells™ when not in use.

PREPARATION OF THE SYSTEM FOR USE

Each Greer *Tray*[™] is supplied with labels ruled to correspond to the well positions in the tray. Labels should be used to identify the antigens contained in the wells.

Greer *Wells*[™] are supplied in packs of 24. Using aseptic procedures, open the pack carefully and place the wells in each of the positions to be filled with skin test antigens in the Greer *Tray*[™]. Press the wells firmly into place.

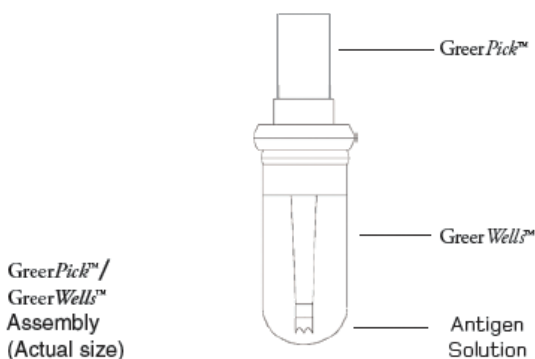


Figure 2 (diagram)

Fill each Greer *Well*[™] with approximately 0.125 mL of the appropriate extract as shown in *Figure 2*. Pay careful attention to assure that the antigens in the wells correspond with the labels on the tray. It is strongly recommended that glycerinated extracts containing a phenol preservative be used to inhibit microbial growth.

Greer *Picks*[™] are supplied sterile in trays of 42. Greer *Picks*[™] should be inserted into the Greer *Wells*[™] immediately after filling to prevent the entry of foreign matter. Handle the Greer *Picks*[™] only by the larger handle end and take care not to contaminate or damage the small end which contacts the patient's skin. Once the Greer *Tray*[™] is labeled, loaded with antigens, and the Greer *Picks*[™] are inserted, the system is ready for use. Store the system in the refrigerator at all times when not in use to maintain antigenic potency.

When the wells are emptied they should be discarded and replaced with new sterile wells loaded with the appropriate fresh antigens. This practice will help ensure antigen potency. Empty wells can be identified by viewing the Greer *Tray*[™] from beneath by holding the tray overhead. To remove empty Greer *Wells*[™] from the Greer *Tray*[™] simply lift upward and discard. Replace and refill as above.

SKIN TESTING WITH THE GREER *Pick*[™] SYSTEM

Allergy testing with the Greer *Pick*[™], as with any skin test device, requires that the proper technique be developed and used. Proper contact between the device and the skin is required to ensure that the antigen bearing tines of the device penetrate, scarify or prick the epidermis to deliver the antigen to the underlying reactive dermis layer of the skin. Proper test technique, however, will not cause bleeding. The prick technique is the recommended method for use of the Greer *Pick*[™].

Using The GreerPick™ as a Prick Test Device

Remove the GreerPick™ from the GreerWell™ and briefly inspect to ensure that a small droplet of antigen is present at the tip of the device. Holding the GreerPick™ at an approximate 45 degree angle to the skin at the test site, bring the tip of the GreerPick™ in contact with the skin in the direction the GreerPick™ is pointing. Press the tines making contact into the superficial skin, withdrawing with a slight lifting of the skin. A properly applied prick test will result in a small pricking of the epidermis, but will not result in bleeding or scarring. Discard the used device into a suitable biohazard container.

While the Prick method is the preferred method of use, Greer recognizes that health care providers may want to use other accepted techniques, which are described below:

Using The GreerPick™ as a Puncture Test Device

Remove the GreerPick™ from the GreerWell™ and briefly inspect to ensure that a small droplet of antigen is present at the tip of the device. Holding the GreerPick™ perpendicular to the skin surface at the test site, firmly press the tines of the device into the skin. A properly performed test will leave six small indentations corresponding to the tines of the device, but will not result in bleeding or scarring. Discard the used device into a suitable biohazard container.

Using The GreerPick™ as a Scratch Test Device

Remove the GreerPick™ from the GreerWell™ and briefly inspect to ensure that a small droplet of antigen is present at the tip of the device. Holding the GreerPick™ perpendicular to the skin at the test site, lightly touch the tip of the device to the skin ensuring that all six tines are in contact and simultaneously rotate the device approximately one-quarter turn. A properly applied scratch test will result in some abrasion of the epidermis but will not result in bleeding or scarring. Discard the used device into a suitable biohazard container.

It is recommended that technicians unfamiliar with the use of the device practice the different techniques using glycerinated histamine positive control and glycerinated negative control solution. A properly applied positive control should result in a wheal reaction of approximately 5 mm or greater, and an erythema (redness/flare) reaction of approximately 20 mm to 25 mm diameter in normally reactive individuals. As with any test, wide variations in patient reactivity are not uncommon.

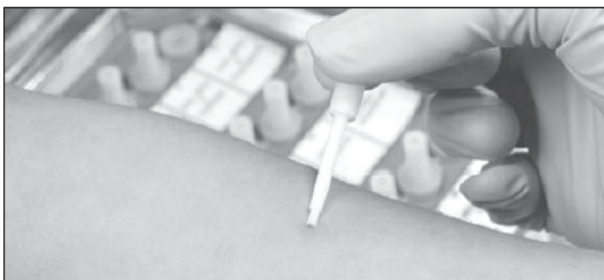


Figure 3

Skin testing is normally performed on the volar surface of the forearm and on the back. Sanitize the test sites with alcohol swabs, and mark the sites for reference. (See *Figure 3*) Test sites should be separated by approximately 3 cm (0.8 inches)* to prevent strong positive reactions from overlapping and causing difficulties in interpreting results.

* (*JACI Position Statement, 1993; 92:636-7*)

After the test sites have been sanitized and marked, you may begin testing using the *testing method of your choice*: prick, puncture or scratch. Upon the completion of each test, a small amount of antigen solution will remain on the skin at the test site. Continue testing with the desired number of antigens, discarding the used GreerPick™ into an appropriate biohazard container after each test. Place new GreerPicks™ in the GreerWells™ as soon as possible to avoid contamination of the antigen in the wells. It is recommended that each patient be tested with both a positive (50% Glycerinated Histamine), and negative (50% Glycerinated saline) control in addition to the test antigens.

GreerPick™ devices are single use only devices. To prevent the occurrence of antigen cross-contamination or the transfer of infectious agents, such as serum Hepatitis, DO NOT reuse the devices.

INTERPRETATION OF TEST RESULTS

Allergic individuals exhibit extreme variability in their reactions to test antigens, and it is important to judge the results of allergy skin tests in relation to both the positive and negative control tests. Careful consideration of patient history, current antigen exposure, and any recent use of interfering drugs such as antihistamines or beta-blockers should be considered. Readings of the test sites should be taken approximately 15 to 20 minutes after administration of the test antigens. Assessment of both the wheal (swelling and edema) and erythema (flare/redness) reactions should be conducted and recorded.

Reactions appearing less than or equal to the size of the negative control test are to be considered negative reactions. Reactions of wheal and/or erythema size exceeding those of the negative control test should be considered positive reactions. Various methods are in use for the grading of skin test reactions to allergens; a common scheme is presented below. It is important to note that individual patient reactivity can vary greatly with time, antigen potency, drug therapy and/or immunotherapy, as well as testing technique.

- 1+ Wheal, if present, equal to or larger than negative control reaction.
Erythema larger than negative control, but less than 10 mm diameter.
- 2+ Wheal up to 7 mm diameter, and erythema up to 20 mm diameter.
- 3+ Wheal diameter up to 10 mm, and erythema larger than 20 mm diameter; pseudopodia may or may not be present.
- 4+ Wheal diameter larger than 10 mm, with pseudopodia, erythema as for 3 +.

Alternatively, test results may be recorded by noting the largest diameter of both wheal and erythema as well as the diameter of the reaction perpendicular to the largest reaction diameter. Thus, an approximate area for both wheal and erythema can be calculated. While some correlation exists between the size of patient reaction and the degree of sensitivity, other factors as mentioned above must be considered in the diagnosis of allergy to specific antigens.

HOW SUPPLIED

Item # GP-1C	-	50 packs of 42 (2,100) Greer <i>Picks</i> [™] (Sterile)
Item # GW-2	-	1 pack 24 Greer <i>Wells</i> [™] (Sterile)
Item # GY-5	-	1 ea. 60-Well Greer <i>Tray</i> [™] with labels
Item # GY-40	-	1 ea. 40-Well Greer <i>Tray</i> [™] with labels

WE WELCOME YOUR QUESTIONS

T: 800.378.3906
F: 800.419.7302
www.greerlabs.com

sales@greerlabs.com
PO Box 800
Lenoir, NC 28645 USA