

The Pollen

Issue N°17 - Skin Prick Puncture Testing

This issue of the Pollen presents the evolution of allergy skin testing, the differences in skin testing methods and a review of the method used by United Allergy Services (UAS).

Skin testing is the oldest and most reliable form of allergy testing. Used for over 100 years, skin testing continues to be the “gold standard” for diagnosing allergic disease. However, since its inception, many terms have been used to describe it. Words such as scratch, prick puncture, percutaneous, intradermal, and intracutaneous describe skin testing. However, they all have a slightly different meaning.

The first known skin test was done in 1865 by a homeopathic doctor named Charles H. Blackley. He scratched a quarter inch area of his skin with a lancet and applied a wet piece of lint containing pollen grains over the abraded area and covered it with an occlusive bandage. After 6 hours of intense itching, he documented a large skin response with swelling. (Clinical Allergy 1993;3:103-80)

In 1924, skin scratching for testing evolved and clinicians started to describe it as the prick skin test method. (Heart 1924;11:209)

In 1931, a skin puncture device called the Mueller device was invented to help clinicians make at least 6 uniform abrasions on the skin of their patients for testing.

In 1968, the skin prick test became the preferred method of skin testing for allergens and soon after multiple pronged disposable devices that are used today came into use.

Another method of testing for allergen sensitivity is the intradermal or intracutaneous test. This consists of using a syringe and needle to create a small bubble of antigen just under the skin. This technique was first thought to be superior to scratch or prick puncture testing. However, numerous studies have shown that intracutaneous testing has produced false positives and does not correlate with clinical symptoms as well as skin prick puncture testing.

The preferred allergy test method used by UAS is the quick and virtually painless skin prick test. A disposable prick puncture test device is used to gently puncture the dermis to a depth of 1mm on several small areas of the skin while depositing allergen extracts. A positive test will appear as a raised, red itchy bump on the areas of skin that were lightly punctured.

When discussing skin (prick) testing for allergens always remember that there are different methods and different terms used to describe them.

Scratch



Intracutaneous



Prick Puncture



Prick Puncture Device

