## Conducting a penicillin allergy skin test

### STEP 1

#### Prepare testing supplies

- **Collect all test materials**
  - Syringes
  - Syringe labels
  - Skin test devices
  - Alcohol swabs
  - Reaction guide
  - Skin test recording form
  - Single PRE-PEN® (benzylpenicilloyl polysine injection USP) ampule
  - PenG (10,000 units/mL)
  - Histamine (1 mg/mL)
  - Saline

- **Label syringes**
  Apply the corresponding reagent label to each syringe.

- **Fill each syringe with the corresponding test material**
  - 0.2 cc PRE-PEN
  - 0.1 cc histamine
  - 0.2 cc PenG (10,000 units/mL)
  - 0.2 cc saline

### STEP 2

#### Skin prick testing

- **Prepare skin for testing**
  Wipe volar forearm with alcohol swab and create 4 sections labeled positive (+), negative (-), PRP, and PG.

- **Drop test reagents on skin**
  Using the prelabeled syringes, place a small drop of antigen in each of the 4 labeled testing sections without touching the syringe to skin. Be sure to use the correct syringe by matching its label with the same label on the skin testing section.

- **Perform skin prick test**
  Using the blue Duotip-Test® skin prick device, press down and twist through the small drop of reagent.
  - Discard the skin test device, and repeat until all 4 test sites have been pricked
  - A valid histamine test site must be ≥3 mm
    - If the test site is not ≥3 mm, testing should be stopped and attempted on another day

- **Wait 15 minutes and measure results**
  If you have confirmed a positive (+) histamine reaction and negative PRE-PEN, PenG, and saline (-) reactions on your recording form, continue to the next portion of the test. A positive result will be ≥3 mm larger than negative control.
If skin prick testing is negative, proceed to intradermal (ID) testing. If PRE-PEN and/or PenG skin prick tests are positive, testing should conclude.³

**STEP 3**

**Intradermal testing**

- **Prepare skin for ID testing**
  Wipe back of upper arm or opposite volar forearm with alcohol swab.¹ ³

- **Label skin for ID testing**
  Intradermal testing is done in DUPLICATE, except for the saline control. Mark skin with 5 sections labeled PRP, PRP, PG, PG, and saline (-).² ³

- **Perform ID tests, creating 3-mm blebs¹-³**

- **Draw a circle around the immediate perimeter of each original bleb³**

- **Wait 15 minutes and measure results¹-³**
  A positive result will show growth of ≥3 mm vs the original test site.

- **Record results on a skin test recording form³**

This picture shows a positive ID test reaction; therefore, the patient is confirmed as penicillin allergic and testing should conclude.

**Optional systemic challenge**

If ID testing is negative, an optional systemic challenge may be given to confirm the allergy-negative diagnosis.⁴

Prepared test materials are recommended for same-day use. Unused materials should be discarded.¹

PenG=penicillin G; PG=penicillin G; PRP=PRE-PEN.

Please see Important Safety Information on reverse side and accompanying full Prescribing Information.
**Why test for penicillin allergy?**

Approximately 9 out of 10 patients who report penicillin allergy are likely not allergic, and patients can lose their penicillin allergy over time.\(^2,5\)

**Helps overcome resistance:** Overtreatment with broad-spectrum antibiotics can contribute to the spread of multidrug-resistant bacteria.\(^2,5\)

**Expands antibiotic options:** Unverified penicillin allergy unnecessarily restricts the use of beta-lactam antibiotics.\(^5\)

**AAAAI recommends penicillin allergy skin testing in patients who self-report penicillin allergy.**\(^6\)

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**Indication**

PRE-PEN\(^\circledR\) is indicated for the assessment of sensitization to penicillin (benzylpenicillin or penicillin G) in patients suspected to have clinical penicillin hypersensitivity.

**Important Safety Information**

The risk of sensitization to repeated skin testing with PRE-PEN\(^\circledR\) is not established. Rarely, a systemic allergic reaction including anaphylaxis may follow a skin test with PRE-PEN\(^\circledR\). To decrease the risk of a systemic allergic reaction, puncture skin testing should be performed first. Intradermal skin testing should be performed only if the puncture test is entirely negative.

PRE-PEN\(^\circledR\) is contraindicated in those patients who have exhibited either a systemic or marked local reaction to its previous administration. Patients known to be extremely hypersensitive to penicillin should not be skin tested. Please see the package insert for full prescribing information.

No single skin test or combination of tests can completely assure that a reaction to penicillin therapy will not occur.

**You are encouraged to report negative side effects of prescription drugs to the FDA. Visit MedWatch or call 1-800-FDA-1088.**

**Please see accompanying full Prescribing Information.**

**References:**

1. **PRE-PEN.** Prescribing information. AllerQuest LLC; 2013.