

SKIN PRICK TEST

A practical guide

THE SEVEN “GOLDEN RULES” OF SPT

1. Use standardized extracts when available.
 2. Include a positive and a negative control solution.
 3. Perform tests on normal skin.
 4. Evaluate the patient for dermographism.
 5. Determine and record medications taken by the patient and time of last dose.
 6. Record the reactions after 15 min.
 7. Measure the longest wheal diameter.
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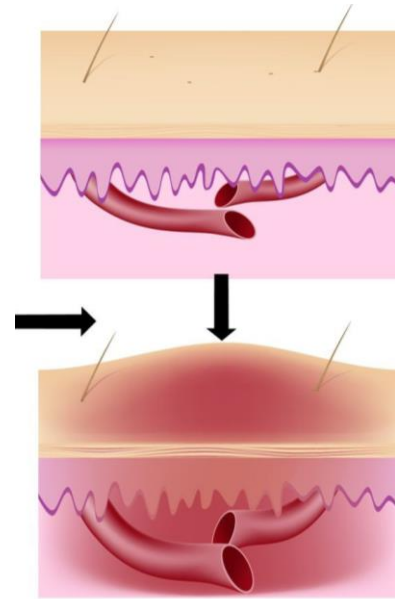
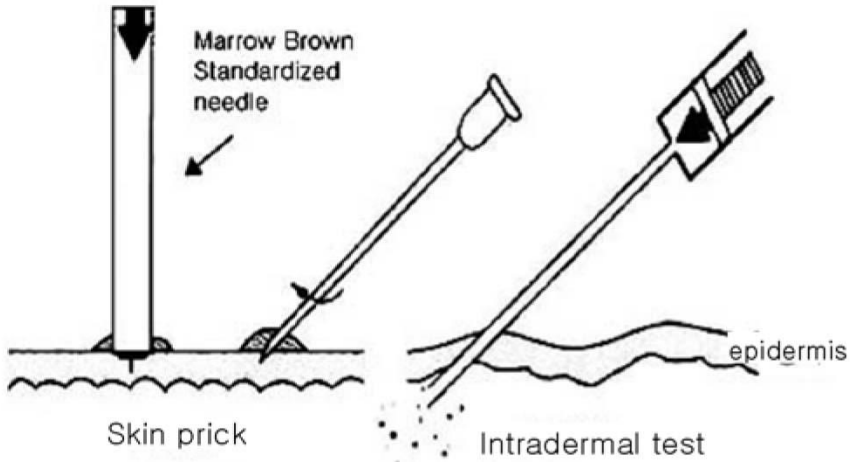
COMMON ERRORS

Table 2 Common errors in skin prick tests

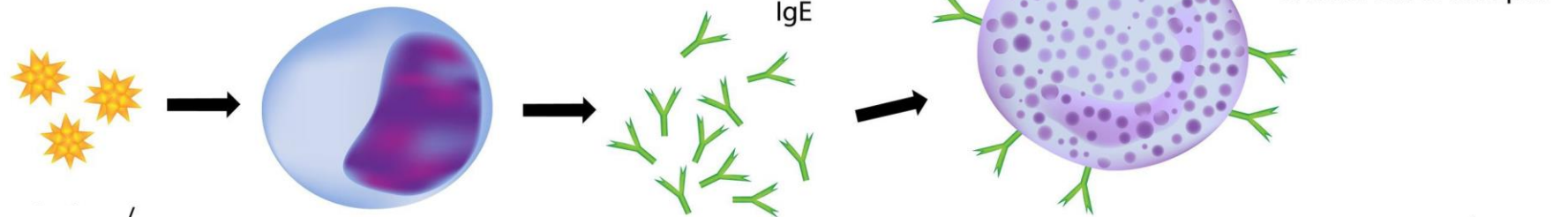
1. Tests are placed too close together (<2 cm), and overlapping reactions cannot be separated visually.
 2. Induction of bleeding, leading possibly to false-positive results.
 3. Insufficient penetration of skin by puncture instrument, leading to false-negative results. This occurs more frequently with plastic devices.
 4. Spreading of allergen solutions during the test or when the solution is wiped away.
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EAACI
EUROPEAN ACADEMY OF ALLERGY
AND CLINICAL IMMUNOLOGY



Histamine increases the permeability and distension of blood capillaries



Treatment	Degree	Duration	Clinical significance
Oral H1-antihistamine	++++	2-7 days	Yes
Intranasal H1-antihistamine			None
H2-antihistamine	0 to +		None
Imipramines	++++	Up to 21 days	Yes
Phenothiazines	+ to ++	Up to 10 days	Yes
Corticosteroids			
Systemic, short term	0		None
Systemic, long term	Possible		None
Inhaled	0		None
Topical skin	+ to ++	Up to 7 days	Yes
Dopamine	+		None
Clonidine	++		None
Montelukast	0		None
Specific immunotherapy	0 to ++		None
UV light treatment systemic depending on light source, most intensive with PUVA	+++	Up to 4 weeks	Yes

INHIBITORY EFFECT OF VARIOUS TREATMENTS

Pollen

Birch (*Betula verucosa*) or mixed Betulaceae

Cypress (*Cupressus sempervirens*) or other cypress pollen species

Grass: one species or mixed grass pollens

Mugwort (*Artemisia vulgaris*)

Olive (*Olea europaea*) or ash (*Fraxinus exelsior*)

Parietaria officinalis

Plane (*Platanus occidentalis*)

Ragweed (*Ambrosia eliator*)

Mites

Dermatophagoides pteronyssinus

Dermatophagoides farinae

Animals

Cat (*Felix domesticus*)

Dog (*Canis familiaris*)

Moulds

Alternaria alternata

Cladosporium album

Insects

Cockroach (*Blatella* sp.)

GALEN-SUGGESTED PANEL OF ALLERGENS

POSITIVE RESULTS

- only the wheal is needed
- wheal diameters ≥ 3 mm are considered positive

FALSE POSITIVE RESULTS

- dermographism
- irritant reactions
- non-specific enhancement from nearby strong reactions

FALSE NEGATIVE RESULTS

- Extracts of poor initial potency or subsequent loss of potency
- Drugs or other topical treatments
- Diseases attenuating the skin response
- Improper technique (no or weak puncture)
- Limited local production of allergen-specific IgE (only in the nose or in the eye)