

ESTABLISHING A PATCH TEST CLINIC

A RESOURCE MANUAL



DORMER LABORATORIES INC.

North American Distributors

Chemotechnique Patch Tests & Accessories

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Establishing A Patch Test Clinic

Patch Testing

General comments on patch testing, irritant and allergic contact dermatitis, and when to patch test.

Financial Considerations of a Patch Test Clinic

An abstract of a paper "Building a Patch Test Clinic" presented at the 15th Annual American Contact Dermatitis Society Meeting, February 5th, 2004, at the Renaissance Hotel, Washington, D.C. by Debra D. Fett, M.D..

Reimbursement for Patch Testing

A general outline of the procedure for securing reimbursement for patch testing services provided to patients.

Setting Up the Patch Test Clinic

Allergens, accessories and other considerations when planning the Patch Test Clinic

Patch Testing Procedures

Information on allergen preparation, applying the chambers to the patient's back, and suggested patient instructions.

Reading the Results

Information on exposure time, removing the chambers from the patient's back, interpreting results, late reactions, and providing patient information.

Reference and Resource Sources

A listing of professional journals and reference books related to contact dermatitis and its practice, internet web-sites, and how to contact the American Contact Dermatitis Society.

PATCH TESTING

Patch testing has achieved professional recognition and acceptance as a scientific tool in investigating allergic contact dermatitis, an inflammation of the skin developed by some people as a result of their contact with certain substances (allergens).

The advantage of patch testing for suspected allergic contact dermatitis is that the problem allergens can be identified and the patient's rash can be effectively treated.

There are two types of contact dermatitis:

Allergic contact dermatitis which occurs when the skin has become sensitized to a certain substance (allergen) and comes in contact with that substance again.

Allergic contact dermatitis symptoms include:

- Reddening of the skin (either in patches or all over the body)
- Intermittent dry, scaly patches of skin
- Blisters that ooze
- Burning or itching which is usually intense without visible skin lesions
- Swelling in the eyes, face and genital area
- Hives
- Sun sensitivity
- Darkened, "leathery" and cracked skin.
- ACD can be difficult to distinguish from other rashes.

Irritant contact dermatitis which occurs when the skin is repeatedly exposed to a mild irritant, such as detergents or solvents, over a long period of time, or a strong irritant, such as acid, alkali, solvent, strong soap or detergent, which can cause immediate skin irritation.

Irritant contact dermatitis symptoms include:

- Mild swelling of the skin
- Stiff, tight feeling skin
- Dry, cracking skin
- Blisters
- Painful ulcers on the skin

Symptoms vary depending upon the cause of dermatitis.

Contact dermatitis can result from normal daily activity or occupational exposure to these substances.

When to Patch Test

- * When allergic contact dermatitis is suspected
- * When there is evidence of a work related dermatitis
- * When there is any "refractory" or unexplained eczema
- * When there is exposure to causative substances (jewelry, fragrances, plants, medications, etc)

(It is not recommended to patch test during pregnancy for medico-legal reasons.)

FINANCIAL CONSIDERATIONS of a PATCH TEST CLINIC

This is the abstract of the paper "Building a Patch Test Clinic" presented at the 15th Annual American Contact Dermatitis Society Meeting, February 5th, 2004, at the Renaissance Hotel, Washington, D.C. by Debra D. Fett, M.D.

BUILDING A PATCH TEST CLINIC

Debra D. Fett, Margo Schlewitz, Department of Dermatology, Indiana University, Indianapolis, Indiana

Patch testing is critical to evaluation and treatment of contact dermatitis. Time, expense, and antigen accessibility may even seem prohibitive.

Objective: To develop a patch test clinic which is financially viable and clinically gratifying.

We started by purchasing supplies, hiring a detail-oriented nurse, and ordering antigens through Chemotechnique (CT). Pharmacy prepared additional antigens not available through CT.

We then started our patch test clinic, testing 6 to 8 patients per week.

The initial start-up costs were approximately \$13,000. Antigens comprised most of the expense at \$9,000. At .625 FTE, the average nursing cost with fringe benefits is \$89 a test. The average number of patches per test is 82 for a total direct cost of \$159.00/test. At \$24.00 per patch (comparable pricing), the average charge per test is \$1,968 and the average collection is \$1,144.00/test. Subtracting the direct expenses and allowing 45% of the revenue for indirect expense, the expected profit per test is \$470 or \$124,000 over 44 weeks.

These numbers reflect our clinic's first 7 months. We anticipate both collections and patient numbers to increase over time.

Conclusion: Developing a viable patch test clinic is possible, challenging and gratifying.

REIMBURSEMENT FOR PATCH TESTING

CANADA:

Reimbursement for patch testing procedures and patient consultations are set by each individual Province. The number of tests allowed and the reimbursement varies by Province.

Private insurance coverage allowances also vary by plan and company.

SETTING UP THE PATCH TEST CLINIC

PHYSICAL ARRANGEMENTS

In addition to the normal medical office layout and arrangements for handling patients, it would be beneficial for the nurse responsible for the patch testing to have:

- * a table or counter area available for the preparation of the tests for each patient, (can be prepared in advance or on day of patient visit),
- * a refrigerator for the storage of the allergens and the patient tests prepared in advance of the visit, and
- * a storage area for patch testing supplies (chambers, reading plates, skin markers, prefilling application plates, plastic bags, etc.).

PATCH TESTING MATERIALS AND ACCESSORIES



Selection of Allergens:

Chemotechnique Diagnostics AB, of Malmo, Sweden, is the world leader in patch test allergens and accessories. Dörner Laboratories Inc., Toronto, Ontario is their North American Distributor. There are 375+ allergens available commercially, as individual allergens or in 26 various series.

1. Order by series:

The NORTH AMERICAN SERIES (NA-1000) is comprised of 45 allergens selected based upon the current findings, results and conclusions drawn from the continuing research being undertaken in the patch testing field in North America. This is the most widely used screening series.

Additionally, there are 25 specialized screening series:

Bakery (B-1000, 19 allergens)	Corticosteroid (CS-1000, 8 allergens)
Cosmetic (C-1000, 48 allergens)	Dental (DS-1000, 30 allergens)
Dental Materials Patients (23 allergens)	Dental Materials Staff (10 allergens)
Epoxy (E-1000, 9 allergens)	European (S-1000, 25 allergens)
Fragrance (F-1000, 25 allergens)	Hairdressing (H-1000, 26 allergens)
Isocyanate (I-1000, 6 allergens)	Leg Ulcer (LU-1000, 27 allergens)
Medicament (ME-1000, 13 allergens)	Plant (PL-1000, 13 allergens)
MethAcrylate-Adhesive (MA-1000,15 allergens)	Oil & Cooling (O- 1000, 35 allergens)
MethAcrylate-Nails (MN-1000, 13 allergens)	Shoe (SH-1000, 22 allergens)
MethAcrylate-Printing (MP-1000, 24 allergens)	Sunscreen (SU-1000, 15 allergens)
North American Photo (NAP-1000, 24 allergens)	Textile Colors & Finish (TF-1000, 32 allergens)
Photographic Chemicals (P-1000,16 allergens)	Rubber Adhesives (R-1000, 25 allergens)
Plastics & Glues (PG-1000, 25 allergens)	Scandinavian Photo (SP-1000, 20 allergens)
Various (individual allergens) - 55 allergens	

(To view the allergen composition of each of these series please click on Patch Testing on the Navigation Bar.)

2. **Customize your own series** to meet the particular needs of your practice.

You can accomplish this by ordering individual allergens or by ordering a series and adding additional allergens to it.

3. **Special allergen requirements**

If during your patch testing activities you identify allergen requirements that are not in our catalogue (or on our website) just call or fax us your needs and we will determine if we can provide the allergen and the cost.



Patch Test Chambers

A small amount of each allergen to be tested is placed into a chamber (there are 10 chambers on each unit) and then placed on the patient's back.

IQ-Ultra patch test chambers are the most advanced patch testing chambers units providing the following features and benefits:

- * each chamber has a filter paper used for aqueous allergens incorporated which eliminates the need for loose filter papers;
- * the rim of each chamber has an adhesive layer to optimize adhesion to the skin which makes IQ-Ultra a closed-cell system enhancing occlusion and eliminating leakage;
- * the overall size of the 10 chamber unit is small to allow the application of multiple test units to the patient's back;
- * each chamber is made of thin and soft polyethylene foam material maximizing patient comfort;
- * highest quality hypoallergenic surgical tape is used reducing the need for additional taping (except with heavy perspiration or excess oil).
- * each unit of 10 chambers is attached to a protective recyclable plastic cover which makes it possible to reattach the tape after advance filling of the petrolatum based allergens up to two weeks in advance of need.

For more IQ-Ultra information please click on "IQ-Ultra" on the navigation bar.



IQ-Ultra Application Plate

Prepare Allergens up to Two Weeks in Advance of Patient Appointment...

Because of the unique design of the IQ-Ultra Chamber system (with the recyclable plastic cover) you can now prefill all petrolatum based allergens up to two weeks in advance (aqueous allergens are filled on day of application).

Each patient series is placed in a marked plastic bag and refrigerated until the day of application.

This makes the preparation process cost effective and saves nurses/technicians time. For more information on the use of the Application Plate and the pre-filling procedure please click on "IQ Ultra" on the navigation bar.

Other Accessories Available to Facilitate Professional Patch Testing



Reading Plate: to assist in identifying the allergen location on the patient's back after removal of the chamber unit. This is a reusable device.



Skin Markers: for marking the patch test site. This convenient marker contains Methylrosaniline and Silvernitrate for prolonged staining of the skin. For dark skin types or when a non-staining ink is desired a U.V. skin marker is used.



Extra Tape: various widths of hypoallergenic surgical tape (1" and 2" in either roles or dispensers) are available for use with patients where heavy perspiration or excess oil is present.

Other ACD Related Products



Chemotechnique One-Step Nickel Spot Test:

We offer a one-step (dimethylglyoxime) nickel spot test for detection of free Nickel in metal objects. This can be purchased for office use or directly by the patient.

Supplemental Allergens

Mite Patch Testing in Atopic Dermatitis:

Patch Test Mix Dermatophagoides MX21B - 20% petrolatum
50% Dermatophagoide Pharinae
50% Dermatophagoide Pteronyssinus

PATCH TESTING & ORDERING INFORMATION

For additional patch testing background and information please browse our web-site.

Also to facilitate your ordering or obtaining a quotation please use our online system, on the navigation bar, click on "Patch Testing" and then click on "Order/Quote" and follow the instructions. You can also fax your orders to 416-242-9487 (or 877-4DORMER). Our telephone number is 416-242-6167.

If you would like our latest catalogue please send us an email at info@dormer.com.

PATCH TESTING PROCEDURES



Handling of Allergens

If you order series of allergens you will receive them in plastic storage trays and in proper sequence for application. It is recommended that allergens be stored in these trays and under refrigeration and minimize exposure to light.

To reduce space requirements the trays can be stacked on top of each other.

Each allergen has a label identifying the product and other essential information including an expiry date. The expiry dates vary depending upon the chemical stability with petrolatum based allergens having longer expiry dates (up to 2 years and aqueous and alcohol based allergens shorter periods (up to 9 months). The petrolatum allergens are in syringes and the aqueous/alcohol allergens in bottles.

In order to ensure that you receive allergens with the longest expiry dates we order your allergens directly from Chemotechnique rather than carrying inventory at our facilities. This does require that you allow 4 weeks from the time of order placement for receipt of allergens. We do maintain an inventory of patch test chambers and accessories and ship those upon receipt of your order.

We pride ourselves on our high level of customer service and attention.

Preparation of Allergens

Preparation of allergens (putting allergen in each chamber) for patient application can be handled on the day of the patient's visit or prepared up to two weeks in advance (petrolatum based, aqueous on day of application) and refrigerated.

Complete information on use of the Application Plate for prefilling is found on our website, click on "Patch Testing" and "IQ Ultra".

Applying the Patch Test Chamber Units to the Patient



The ideal application site is the upper back. Mid-back can also be used if necessary. The test chambers should be applied neatly, leaving a gap of approximately 5cm between units and either side of the spine. They should not be applied directly under brassiere straps. A record indicating the order of placement of each allergen must be kept.

INITIAL PATIENT INSTRUCTIONS

Proper explanation to the patient of the patch test procedures will ensure greater patient compliance. Providing the patient with a Handout (sample below) can be helpful.

You are being patch tested to determine if your eczema is caused by an allergic reaction to any specific substances. This will involve several visits to the clinic.

On your first visit an examination and evaluation of potential causes will be undertaken so we can identify potential suspect substances.

On your next visit you will have strips of chambers filled with the suspect antigens placed on your back. This may occasionally feel uncomfortable, and you may develop itching under one or more of the chambers. Try to avoid scratching as itching is normally an indication of a positive reaction and scratching might alter the test results. If pain occurs call the clinic. It is recommended that you keep the area dry during this time period while avoiding heavy and physical exercises that could cause excessive perspiration and detachment of the test unit.. We also recommend that you wear loose clothing, and a t-shirt in bed as this helps to prevent the patches from peeling or loosening from the skin. (If you notice such a loosening have someone pressure the adhesive onto the skin. If necessary, you can also apply additional tape to the edges of the chamber units.) Abstain from taking cortisone containing medications, and avoid prolonged sun exposure.

The chamber units will be removed in 48 hours with the first reading being done 20-30 minutes after removal. Your physician will advise you if additional readings are necessary over the next 5 to 7 days. Upon completion of this procedure you will be provided with the results, advised of any allergies you may have and how to minimize possible reoccurrence.

ORDER ONLINE

**Place an order / Obtain a quotation for
CHEMOTECHNIQUE ALLERGENS & ACCESSORIES**

@

www.dormer.com - Click "Physicians Enter Here"

Click "Patch Testing" Click "Order/Request Quote"

Also available on this site are Patient Information Sheets

READING THE RESULTS

Exposure Time

Most clinics advocate an exposure time of 48 hours (day 2) after application to the patient's back and again at 96 hours (day 4). If late reactions are suspected a third reading could be scheduled on day 7 or 10. Between readings the patient can take a bath but not wash the back.

Removing the Chamber Units

Before removing the chamber units from the patient's back mark the edges with a skin marker (either the regular or the U.V. marker). Some transient erythema may be present after the removal caused by the occlusive effect of the allergens and adhesive.

It is recommended that the first reading be taken 15 to 30 minutes after the chamber units has been removed. This will allow the erythema to settle.

Reading and Interpreting Results

This phase of patch testing is, of course, the most critical...determining the relevance of any reactions to the allergens and their significance to the patient.

The result of the reading of each allergen is noted on the Record Sheet (click on "Patch Testing" and "Test Forms" for a copy) using the standard scoring system:

- Negative - no reaction
- ? Doubtful reaction
- + Weak reaction
- ++ Strong reaction
- +++ Extreme reaction
- IR Irritant reaction
- NT Not tested

It is suggested that reading of the various Contact Dermatitis reference and resource books can be very helpful in gaining an understanding of this aspect of patch testing. This listing can be found by going to the navigation bar and clicking on "Patch Testing" and clicking on "Reference & Resources".

Patient Information

Once positive reactions are noted and relevance determined advise the patient about sources of exposure, cross reactions, avoidance, etc. It is suggested that the patient be provided with written information specific to their allergies. The dormer.com website provides basic information (click on "Patch Testing" and "Patient Info") that can be added to from other sources.

Reference and Resource Sources

A listing of professional journals and reference books related to contact dermatitis and its practice, internet web-sites, and how to contact the American Contact Dermatitis Society.

BOOKS

- * Fischer's Contact Dermatitis, 4th Edition, Rietschel & Fowler
Williams & Wilkins
- * Contact & Occupational Dermatology, 2nd Edition, Marks & DeLeo
Mosby
- * Practical Contact Dermatitis, Guin, McGraw Hill
- * Textbook of Contact Dermatitis, 2nd Edition, Rycroft, Menne, Frosch,
Springer-Verlag
- * Occupational Skin Disease, 3rd Edition, Adams, Saunders
- * Patch Testing, 2nd Edition, DeGroot, Elsevier
- * Patch Testing, Prick Testing, A Practical Guide, Lachapelle, Maibach,
Springer-Verlag
- * Management of Positive Patch Test Reactions, Wahlberg, Elsevier, etc.
Springer-Verlag

PERIODICALS

- * American Journal of Contact Dermatitis, Saunders - The Voice of the American Contact
Dermatitis Society
- * Contact Dermatitis, Munksgaard - Official publication of European Contact
Dermatitis Society

WEB-SITES

- * American Contact Dermatitis Society - www.contactderm.org
- * Dormer Laboratories Inc. (North American Distributor for Chemotechnique
Diagnostics AB, Malmo, Sweden - www.dormer.com)
- * Chemotechnique Diagnostics AB, Malmo, Sweden - Leader in Patch Testing
www.chemotechnique.se (Requires registration)

PROFESSIONAL SOCIETY

- * American Contact Dermatitis Society (section of American Academy of Dermatology)
membership and general information - www.contactderm.org
Telephone: 847-330-9830; Facsimile: 847-330-1135