

# Simplifying Allergic Contact Dermatitis Management with the Contact Allergen Management Program 2.0

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## PRACTICE POINTS

- Comprehensive patient education is critical for appropriate allergen avoidance after patch testing, and allergen databases and product safe lists are invaluable tools to complement clinical guidance.
- The updated Contact Allergen Management Program 2.0 offers an updated approach to patient guidance, including a database of more than 100,000 products and an easy-to-use platform to find safe, allergen-free products.
- Interactive learning resources, product pages, and quality-of-life tracking tools can help equip patients with information to encourage further autonomy in allergen avoidance.

For patients, managing allergic contact dermatitis (ACD) can be like a strategic game of poker—many begin with a few chips, but only those who can skillfully read the cards and avoid common pitfalls can maximize their winnings. Physicians should be aware of the challenges patients may face when avoiding allergens as well as long-term avoidance strategies. Herein, we discuss the essential role of contact allergen databases to support patient education and management of ACD. The updated Contact Allergen Management Program (CAMP) 2.0 is a valuable resource to enhance self- and physician-directed guidance and improve quality of life for patients with ACD. We review important new features of CAMP 2.0 and how to utilize product database tools to optimize patient outcomes.

While patch testing is the gold standard to diagnose type IV cutaneous hypersensitivity reactions, interpreting results can feel like trying to decipher a secret code, leaving patients feeling disempowered in avoiding their triggers. To truly manage allergic contact dermatitis (ACD), patients need comprehensive education on which allergens to avoid and ways to spot potential sources of exposure, including counseling, written guidelines, and lists of product alternatives.<sup>1</sup> Patients who can recall and avoid their triggers experience greater improvement in clinical and quality-of-life scores.<sup>2</sup> However, several studies have demonstrated that patients have difficulty recalling their allergens, even with longitudinal reminders.<sup>2-5</sup> Quality-of-life and clinical outcomes also are not necessarily improved by successful allergen recall alone, as patients have reported limited success in actually avoiding allergens, highlighting the complexity of navigating exposures in daily life.<sup>2,6</sup> To address these challenges, we examine common pitfalls patients encounter when avoiding allergens, highlight the benefits of utilizing safe lists and databases for allergen management, and introduce the updated Contact Allergen Management Program (CAMP) 2.0 as an optimal tool for long-term management of ACD.

## Allergen Avoidance Pitfalls

Simply reading ingredient labels to avoid allergens is only marginally effective, as patients need to identify and

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interpret multiple chemical names as well as cross-reactors and related compounds to achieve success. Some allergens, such as fragrances or manufacturing impurities, are not explicitly identified on product labels. Even patients who can practice diligent label reading may struggle to find information on household or occupational products when full ingredient disclosure is not required.

Many of the allergens included in the American Contact Dermatitis Society (ACDS) Core 90 Series have alternative chemical aliases, and many have related compounds.<sup>6</sup> For example, individuals with contact allergy to formaldehyde or a formaldehyde releaser usually need to avoid multiple other formaldehyde-releasing chemicals. Patients who test positive to amidoamine or dimethylaminopropylamine also must avoid the surfactant cocamidopropyl betaine—not because it is a cross-reactor, but because it is an impurity in the synthetic pathway.

Fragrance is one of the most common causes of ACD but can be challenging to avoid. Patients with allergies to fragrance or specific compounds (eg, limonene, linalool hydroperoxides) need to be savvy enough to navigate a broad spectrum of synthetic and botanical fragrance additives. Avoiding products that contain “fragrance” or “parfum” is simple enough, but patients also may need to recognize more than 3000 chemical names to identify individual fragrance ingredients that may be listed separately.<sup>7</sup> Further, some fragrances are added for alternative purposes—preservative, medicinal, or emulsification—in which case products may deceptively tout themselves as being “fragrance free” yet still contain a fragrance allergen. This is made even more complex considering additional additives that commonly may cross-react with individual fragrance compounds; balsam of Peru, for example, is a botanical amalgam containing more than 250 compounds, including several fragrance components, making it an excellent indicator of fragrance allergy.<sup>8</sup> While balsam of Peru and its fragrance constituents will almost never be listed on a product label, it cross-reacts with several benzyl derivatives commonly used in cosmetic formulations, such as benzyl alcohol, benzyl acetate, benzoic acid, benzyl benzoate, and benzyl cinnamate.<sup>9,10</sup>

Given that ACD is a common reason for patients to seek dermatologic care, it is crucial for clinicians to equip themselves with effective strategies to support patients after patch testing.<sup>11</sup> This includes efficient translation of patch test results into practical advice while avoiding the oversimplified suggestion to read product labels; however, education alone cannot address the complexities of managing ACD, which is where contact allergen databases come into play.

### An Essential Tool: Patient Allergen Databases and Safe Lists

Contact allergen databases are like a trusty sidekick for patients and clinicians, providing easily accessible

information and tools to support allergen avoidance and improve ACD outcomes. While there are several existing resources, the ACDS launched its CAMP database in 2011 for ACDS members and their patients.<sup>12</sup> The CAMP allows clinicians to easily generate personalized safe lists for household, medicament, and personal care products, facilitating seamless patient access both online and via a mobile application. The database also includes allergen-specific handouts to guide patient education.<sup>13</sup> A key highlight of the CAMP is automated management of cross-reactors, which allows patients to choose products without having to memorize complex cross-reactor algorithms and helps avoid overly restrictive safe lists (Table).<sup>12–15</sup>

Other databases and online resources provide similar features, such as resources for patient education or finding safe products. The 2018 Alternatives for Allergens report is a vital adjunctive resource for guiding patients to suitable allergen-free products not included in commonly accessible product databases such as occupational materials, medical adhesives, shoes, or textiles.<sup>16</sup>

### Introduction of CAMP 2.0

The latest version, CAMP 2.0, was launched in late 2024. The fully revamped database has a catalog of more than 100,000 products and comes packed with features that address many of the limitations found in the original CAMP. How does CAMP 2.0 work? The clinician inputs the patient’s allergens and makes choices about cross-reactor groups, and CAMP 2.0 outputs a list of allergen-free products that the patient can use when shopping for personal care products and the clinician can use for prescribing medicaments. The new user experience is intended to be more informative and engaging for all parties.

The CAMP 2.0 interface offers frequent product updates and streamlined database navigation, including enhanced search functions, barcode scanning, and a new mobile application for Apple and Android users. The mobile application also allows patients to track their symptoms and quality of life over time. With this additional functionality, there also is an extensive section for frequently asked questions and tutorials to help patients understand and utilize these features effectively.

Patients no longer have to wonder if a product that is not listed on their safe list is actually unsafe or just missing from the database. Several new features, including color-coded ingredient lists and organization of search codes into “safe” and “unsafe” product lists (Figure 1), help increase product transparency. These features can facilitate patient recognition of allergen names and cross-reactors in selected products. Future updates will include product purchasing through the mobile application and more educational handouts, including Spanish translations and dietary guidelines for systemic contact dermatitis.

*Patient Experience*—Once patients complete patch testing with an ACDS member, they can access the

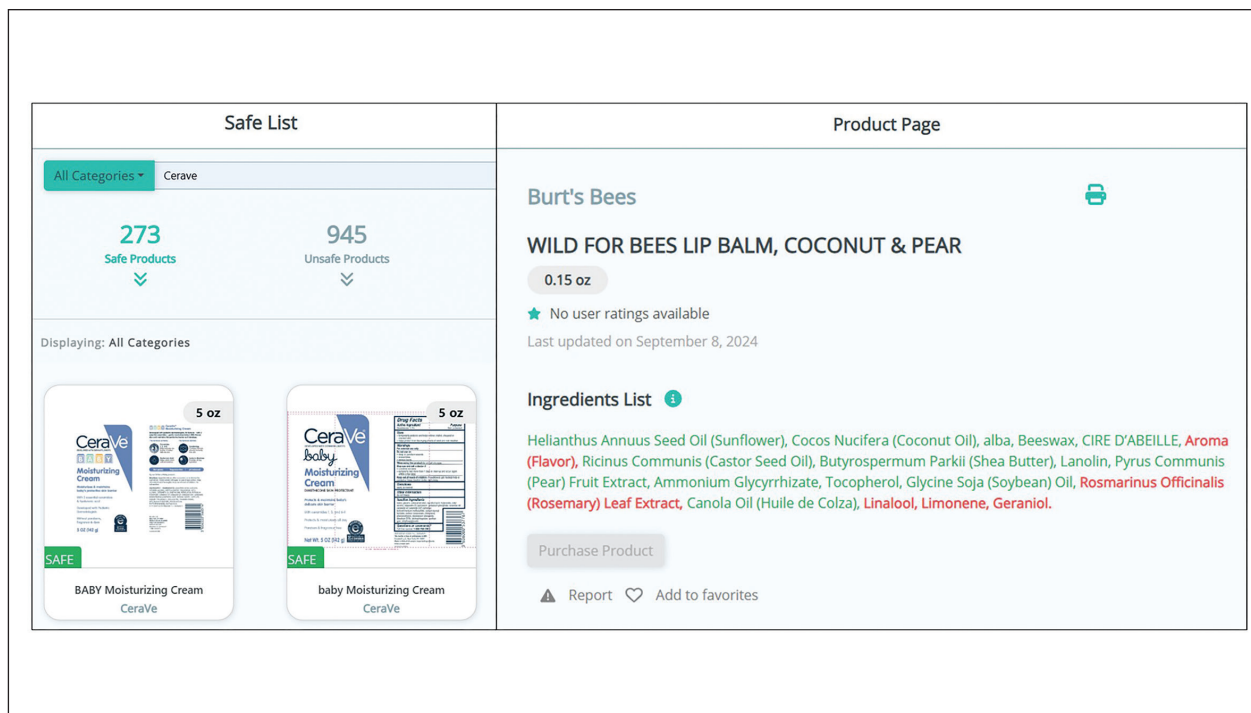
CAMP 2.0 database for free via web-based or a mobile application. After setting up an account, patients gain immediate access to their allergen information, product database, and educational resources about ACD and CAMP 2.0. Patients can search for specific products using text or barcode scanning or browse through categorized lists of medical, household, and personal care items. Each product page contains the product name and brand along with a color-coded ingredient list to help patients identify safe and unsafe ingredients at a glance (Figure 1). Products not currently included in the database can be requested using the “Add Product” feature. Additional patient engagement features include options to mark favorite products, write reviews, and track quality of life over time.

*Physician Experience*—The updated version includes several tutorials and frequently asked questions on how to improve ACD management and make the most of the new CAMP 2.0 tools and features. Generating patient allergen codes has been streamlined with an “Allergen Search” feature, allowing providers to quickly search and add or remove allergens to patients’ safe lists. Cross-reactor groups may be selectively added or removed for greater transparency and specificity in creating a patient safe list (Figure 2). Allergen codes now can be edited over time and are available for patient use via alphanumeric text or QR code format, which easily can be printed on a handout with instructions to help patients get acquainted with the system. For patient counseling, updated education handouts are available in the patient’s

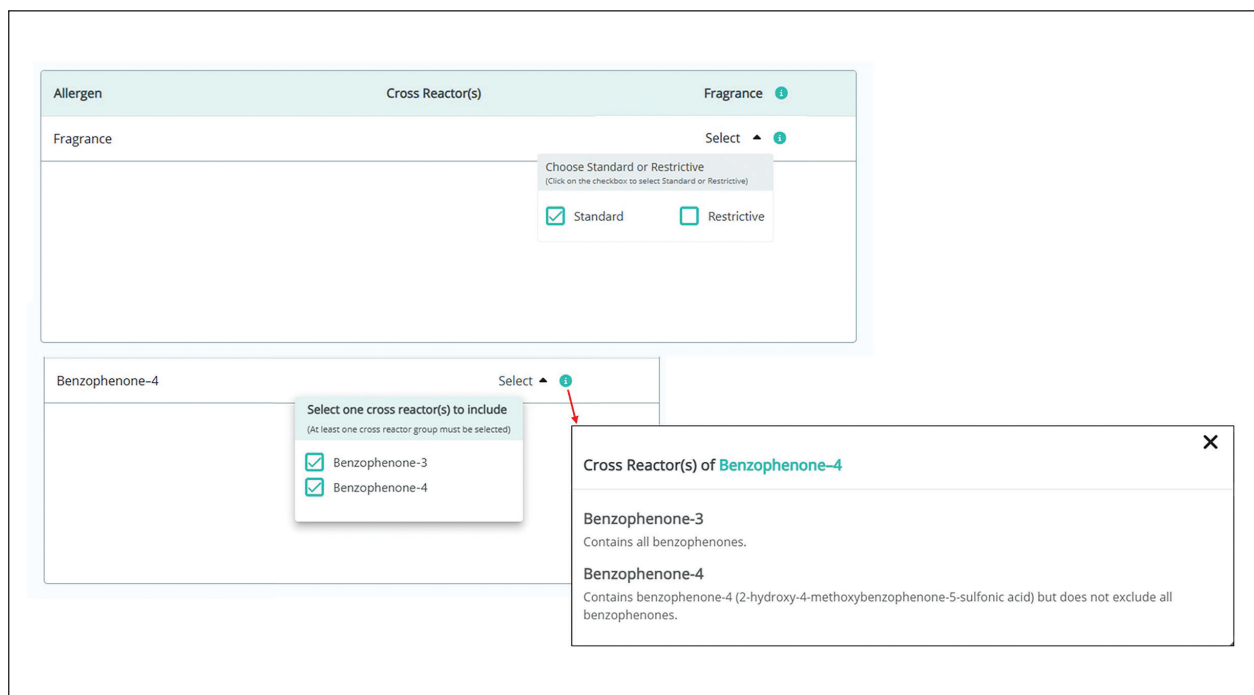
**TABLE. Allergen Alternative/Safe List Resources**

Resource	Sponsor	Features
Contact Allergen Management Program 2.0 ( <a href="https://acds-camp.org">https://acds-camp.org</a> [for patients]; <a href="https://www.contactderm.org/resources/acds-camp">https://www.contactderm.org/resources/acds-camp</a> [for ACDS members])	ACDS	Database that features an automated search for all chemical names associated with an allergen, customizable cross-reactor groups, web and mobile application access, printable allergen education handouts, patient symptom and QOL tracking, product barcode scanning, and a list of over 100,000 suggested products
Alternatives for Allergens in the 2018 American Contact Dermatitis Society Core Series <sup>16</sup>	American Contact Alternatives Group	A comprehensive review of substitutions for occupational and household materials and textiles that may not be included in product databases
SkinSAFE Learning Center ( <a href="https://www.skisafeproducts.com/learn">https://www.skisafeproducts.com/learn</a> )	SkinSAFE Products Inc	Website and mobile application that offer coded and interactive ingredient lists and product barcode scanning
Think Dirty app ( <a href="https://www.thinkdirtyapp.com/">https://www.thinkdirtyapp.com/</a> )	ThinkDirty	Mobile application with product barcode scanning and a search function to find ingredient labels
Contact Allergen Bank ( <a href="https://skinhealthinstitute.org.au/for-health-professionals/research/contact-allergen-bank-australia/">https://skinhealthinstitute.org.au/for-health-professionals/research/contact-allergen-bank-australia/</a> )	Skin Health Institute Inc	Online database of allergens known to cause ACD with patient education resources and a search function to find allergen-free personal care and household products
Patient Information Sheets ( <a href="https://dormer.com/resources/chemotechnique-patch-testing/">https://dormer.com/resources/chemotechnique-patch-testing/</a> )	Chemotechnique	Website that provides quickly accessible, easy-to-print handouts on specific allergens
Patch Testing Information for Patients ( <a href="https://www.smartpractice.com/shop/category?cn=Patch-Testing-Information-For-Patients&amp;id=584919&amp;m=SPA">https://www.smartpractice.com/shop/category?cn=Patch-Testing-Information-For-Patients&amp;id=584919&amp;m=SPA</a> )	SmartPractice	Website that provides quickly accessible, easy-to-print handouts on specific allergens
Contact Dermatitis Allergen Information ( <a href="https://www.contactdermatitisinstitute.com/patients/allergen-information.php">https://www.contactdermatitisinstitute.com/patients/allergen-information.php</a> )	Contact Dermatitis Institute	Website that provides quickly accessible, easy-to-print handouts on specific allergens
Dermatitis Academy ( <a href="https://www.dermatitisacademy.com/">https://www.dermatitisacademy.com/</a> )	Sharon Jacob-Soo, MD	Website with educational videos, articles, FAQs, and quizzes on allergens and ACD as well as lists of products that are free of the top 10 pediatric allergens and cross-reactors (variable by year)

Abbreviations: ACD, allergic contact dermatitis; ACDS, American Contact Dermatitis Society; FAQs, frequently asked questions; QOL, quality of life.



**FIGURE 1.** Demonstration of the Contact Allergen Management Program 2.0 patient features. Patients can search for products by category, brand, or barcode scan, with the results then organized into “Safe” and “Unsafe” lists (left). Individual products have color-coded ingredients lists showing unsafe, allergen-containing ingredients in red text and safe ingredients in green text (right).



**FIGURE 2.** Demonstration of the Contact Allergen Management Program 2.0 cross-reactor selection feature. Clinicians can add or remove cross-reactor categories as needed to personalize patient safe lists. Fragrance allergens (top) may include a standard cross-reactor setting, which is suitable for most fragrance-allergic patients, or a restrictive setting, which restricts additional botanical ingredients that may benefit a minority of patients.

app and may be printed to provide supportive written educational material.

### Approach to Long-Term Follow-up

When it comes to getting the most from patch testing, ongoing allergen avoidance is crucial. Patients may not see improvement unless they understand what ACD is and what needs to be done to improve it as well as become familiar with the names and common sources of their triggers.<sup>17</sup> Clinicians can use CAMP 2.0 to facilitate patient improvement after patch testing, focusing on 3 key areas: continued patient education, patients' ongoing progress in avoiding allergens, and monitored clinical improvement.

A solid understanding of ACD, such as its delayed (ie, 24–72 hours) onset after exposure, the need for allergen avoidance for at least 4 to 6 weeks before seeing improvement, and correlation of identified allergens with daily exposures, plays a major role in patient success. The CAMP 2.0 patch testing basics section is an excellent resource for patient-friendly explanations on patch testing and ACD. This resource, as well as allergen education handouts, may be reviewed at follow-up visits to continue to solidify patient learning.

Patients often have questions about allergen avoidance, such as occupational exposures, the suitability of specific products, or specific allergen names. These discussions are helpful for gauging how well patients are equipped to avoid their triggers as well as any hurdles they may be facing. If a patient still is experiencing flares after 6 to 8 weeks of safe-list adherence, it is important to take a thorough history of product use, daily exposures, and the patterns of distribution on the skin. Possible allergen exposures via topical medications also should be considered.<sup>18,19</sup> Cross-checking products with a patient's CAMP 2.0 safe list and correlating exposures with the continued ACD distribution are effective strategies to troubleshoot for unknown exposures to allergens.

### Final Thoughts

Helping patients avoid allergens is essential to long-term management of ACD. The CAMP 2.0 safe list is an essential tool and a comprehensive reference for both patients and clinicians. With CAMP 2.0, allergen avoidance has never been more interactive or accessible.

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