

VisualDx: Medicine's Second Opinion At Your Fingertips



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Knowledge Nook 9-4-24

VA



U.S. Department
of Veterans Affairs

What is VisualDx?

VisualDx is powerful clinical decision support software that you can use at the point of care.



Search 3,400 diagnoses for concise information including best tests, management, and therapy options.



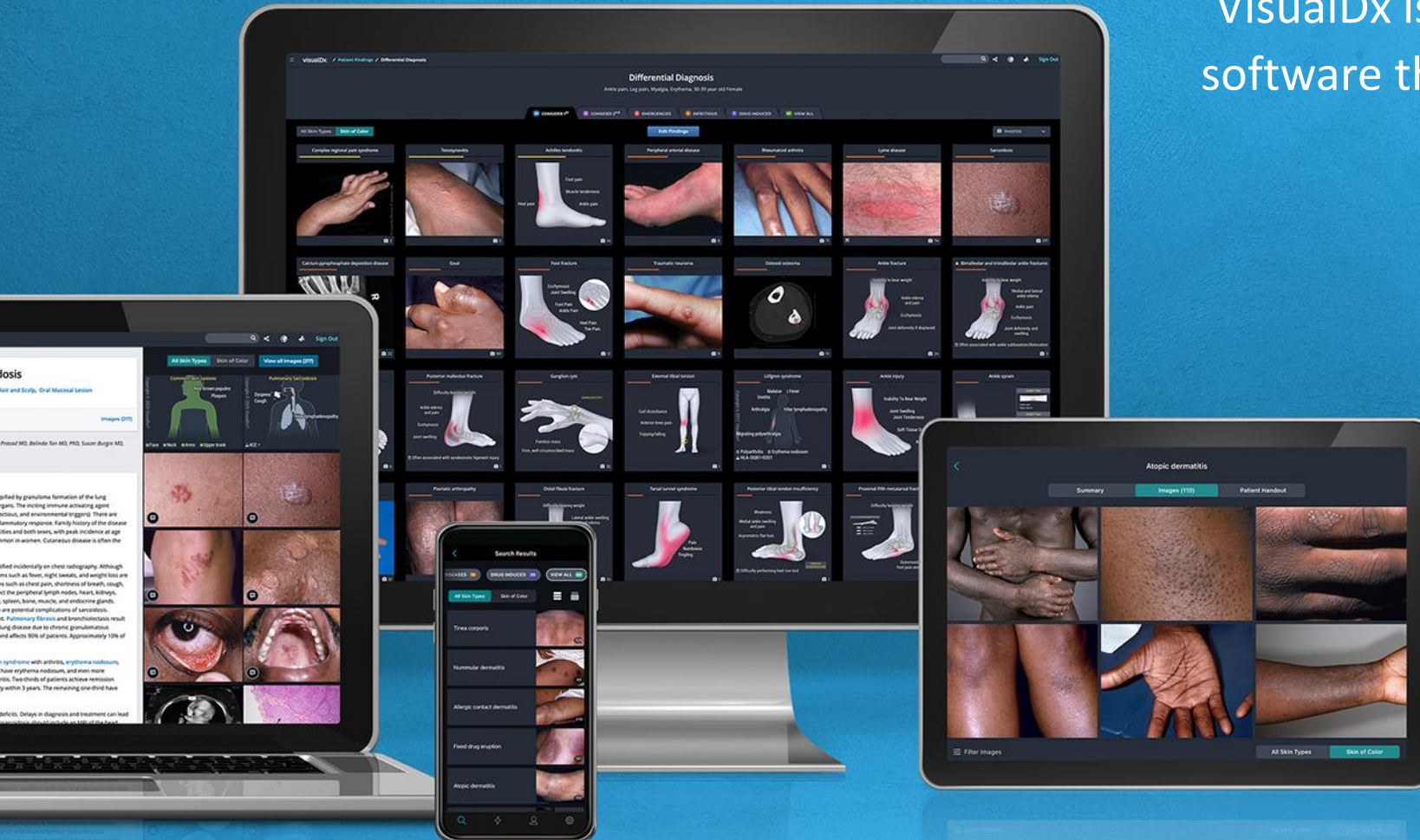
Build a patient-specific diagnosis based on a chief complaint, medication, or travel finding.



Engage patients with images that resemble their condition and handouts for nearly 400 common conditions.

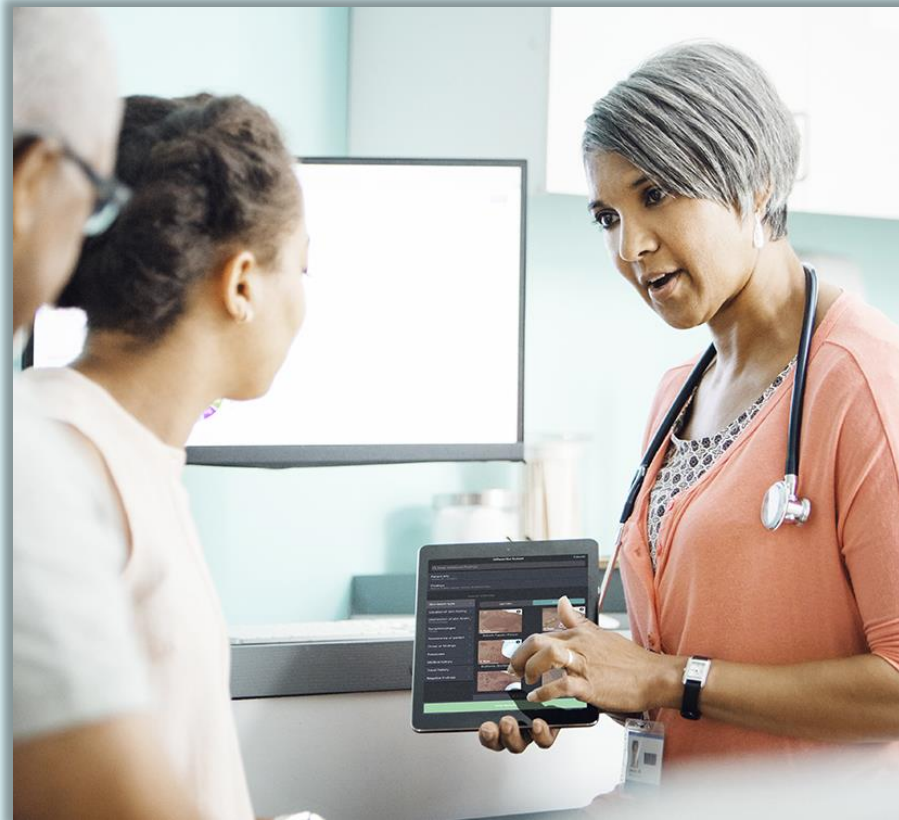


Review more than 47,000 high-quality medical images showing the variation of presentation.



VisualDx Fills Knowledge Gaps

Equity in Knowledge = Improvement in Diagnosis = Improved Health Care Outcomes



During the diagnostic process, doctors can use VisualDx to understand that variations in disease include skin color. VisualDx helps to fill in knowledge gaps related to skin of color.



Doctors engage patients with shared decision-making by using VisualDx to show images to the patient that look like them. Patients are more confident in the diagnosis and compliant with treatment.

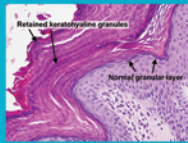
VisualDx is More Than Skin Deep

PLUS AGE-SPECIFIC CONTENT INCLUDING INFANT • CHILD • TEEN • ADULT • GERIATRIC

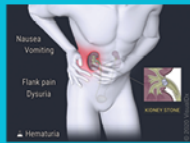
IMAGE VARIETY IN VISUALDX



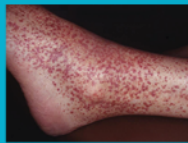
ECG
101



Lab
(histopath, gross)
1,395



Illustrations
400



Clinical
Images
47,000+

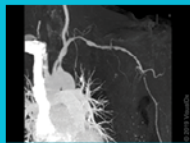


Sympticons
4,196

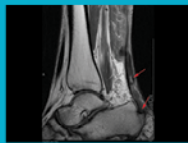


Skin of
Color
Images
29%

Radiology Total: 3,240



Angiography
7



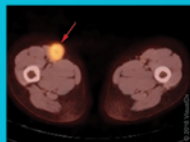
MRI
809



CT
941



Ultrasound
203



PET/CT
10



X-ray
1,270

CLINICAL CONTENT BY SPECIALTY



Allergy / Immunology
326



Eye
252



Nail
101



Pediatric
1,272



Cardiology
151



Gastroenterology
234



Nephrology
118



Poisoning / CBRN*
121



Dermatology
1,240



Genetic
588



Neurology
323



Psychiatry
68



Drug-Induced
859



Hematology
163



Oncology
241



Pulmonary
197



Endocrinology
175



Infectious Disease
562



Oral
129



Rheumatology
145



ENT
123



Injury / Trauma
316



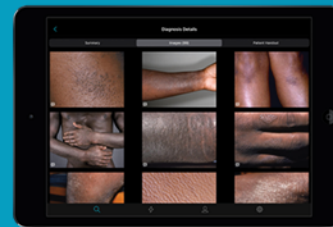
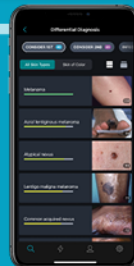
Orthopedic
328



Women's Health
171

Some diagnoses may be counted in more than one specialty. Clinical content is added and updated with each VisualDx data release.

*Chemical/Biological/Radiation/Nuclear



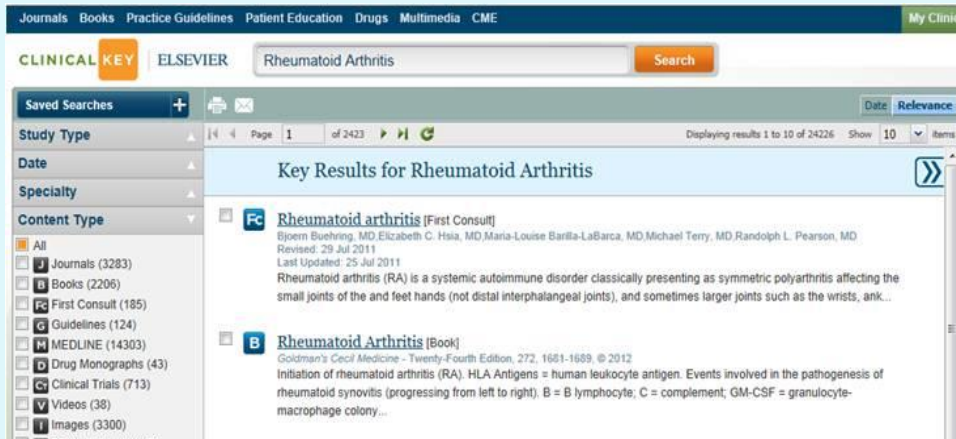
Dermatology for the Non-Dermatologist

The days of dreading rash are over. With VisualDx you can grow more confident in diagnosing skin conditions and recognizing lesions in dark skin. VisualDx is designed to help you identify lesion types and make an accurate diagnosis.

Why Use VisualDx?: Speed and Accuracy Through Visualization

Text-based Analysis

Many support and reference tools contain only detailed text, which makes it hard to use them at the point of care to quickly compare several possible diagnoses.

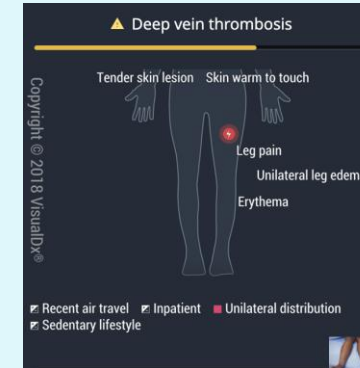


Visual Pattern Recognition

VisualDx uses medical images (including radiology, pathology, EKG), Sympticons™ and Illustrations to help you quickly compare a number of diagnoses.



Illustration



Sympticon



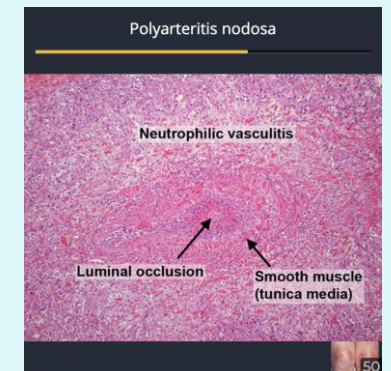
Radiology



Light Skin Image



Dark Skin Image



Pathology

The Cost of Diagnostic Error



A 48-year-old patient presenting with bilateral leg redness and swelling. The patient had been admitted to the hospital 3 times over 6 months for the diagnosis of “cellulitis.” In this case, the correct diagnosis was erythema nodosum.

Each year, at least **one in five** cellulitis patients in the U.S. is diagnosed incorrectly, hospitalized, given medications they don't need, and put at risk for dangerous complications.



500,000 inpatient admissions for cellulitis in the U.S. each year.



Costs estimated at **\$12,000** per admission and an error rate of 20%.



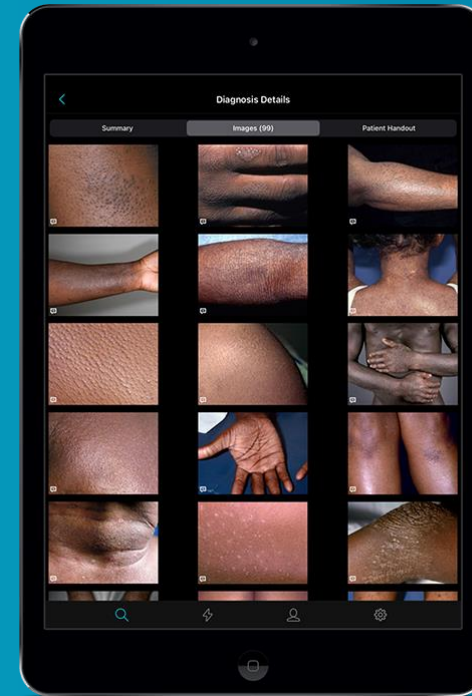
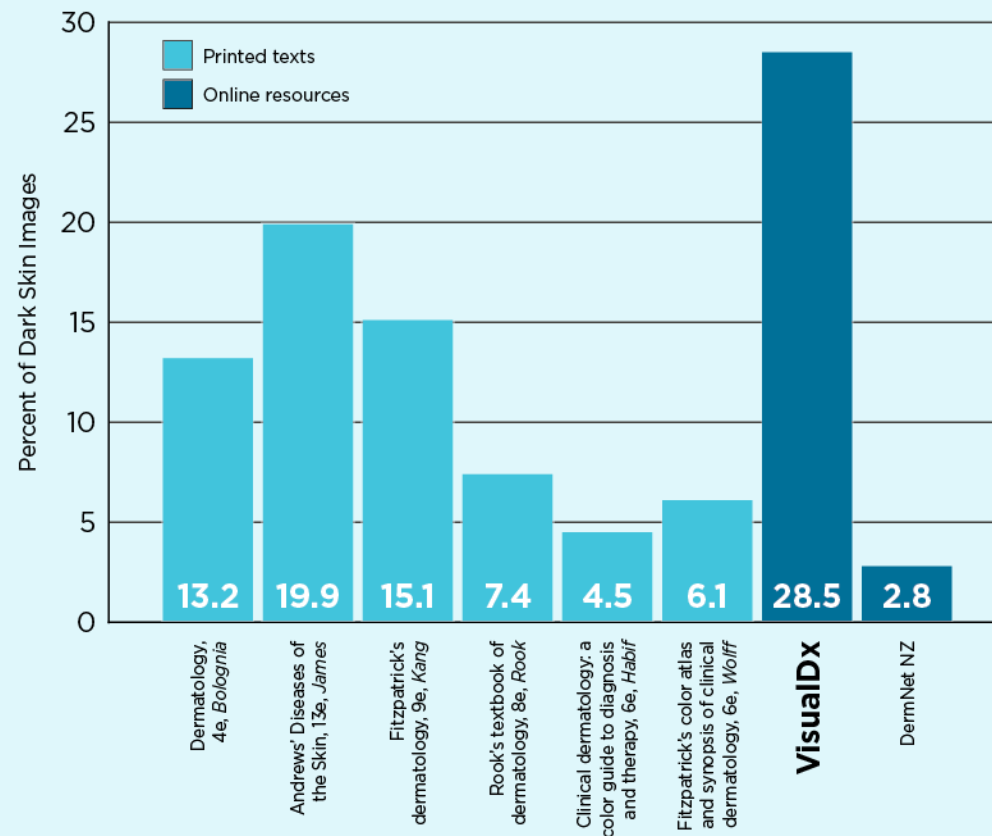
Misdiagnosis costs **one billion** dollars per year for cellulitis alone.



The **highest cost** is potential patient harm, as they can have a serious medication reaction to antibiotics or develop a serious infection during hospitalization.

The World's Leading Skin of Color Atlas

Extent of illustration of dark skin in commonly used dermatologic learning resources for the 65 common dermatologic conditions included in this study.



- VisualDx is recognized for showing “pathology on dark skin in remarkably high proportion compared other resources.”
- We believe representation is critical to bridging gaps of knowledge in medicine.

28.5% of images in VisualDx are skin type IV, V, VI.

Type IV

Type V

Type VI

Disease Appearance: Differences in Skin Presentation

VisualDx is the only resource to have 1/3 of its images representing people of color.

CELLULITIS



Brown to red patch in a person of color with cellulitis.

LYME DISEASE



Large erythematous patch of Lyme disease is subtle and can easily be missed in patients of color.

SYSTEMIC LUPUS ERYTHEMATOSUS



In deeply pigmented skin severe inflammation can cause depigmentation as in this patient.

EXANTHEMATOUS DRUG ERUPTION



Coalescing erythematous papules are much less obvious in this child with exanthematous drug eruption.



Bright, erythematous patch and edema in cellulitis.



Classic targetoid, erythematous patch of Lyme disease is easily seen.

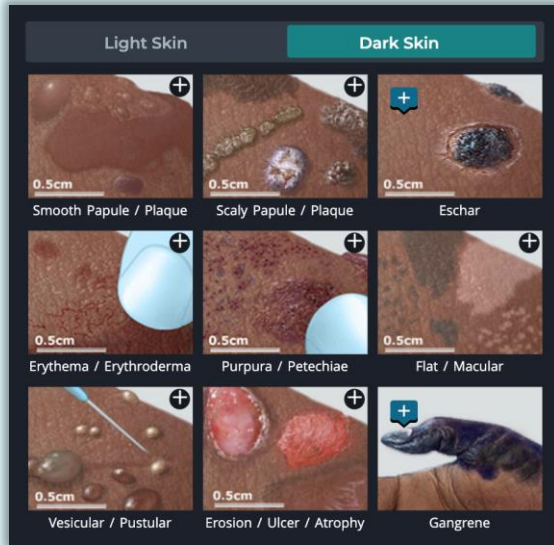


Classic malar erythema in this patient with light skin.

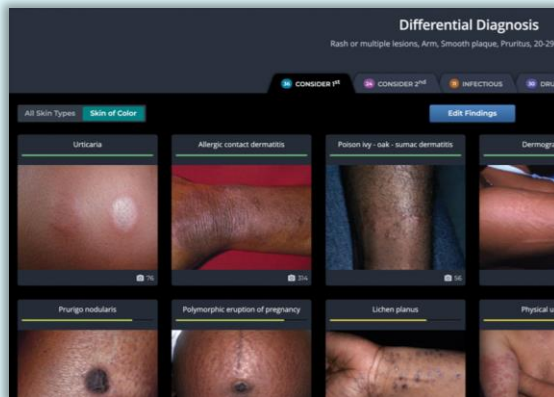


Multiple erythematous papules coalescing on trunk in light skin are obvious on light skin.

Product Enhancements that Support Diversity and Inclusion



Choose lesion morphology for skin of color.



View the differential with skin of color images and filter images by skin type.

Información para el paciente sobre Candidiasis oral en Adulto

Resumen

Las aftas (candidiasis oral), también conocidas como moniliasis oral, son una infección por hongos en la boca o la garganta (la cavidad bucal). El hongo que más comúnmente causa la candidiasis oral es la *Candida albicans*.

Personas en riesgo

La candidiasis es muy común en los bebés. Los adultos que desarrollan candidiasis incluyen:

- Personas con diabetes u otros trastornos glandulares (endocrinos).
- Personas que usan dentadura postiza.
- Personas que toman antibióticos.



Small, flat, white papules on the dorsal tongue.

Share patient handouts in English or Spanish. Handouts are written specifically for a patient audience.



Well-demarcated, deep pink and somewhat violaceous plaques with overlying scale on the feet of an immunocompromised patient.

Read image captions to gain additional insight into presentations of disease.

Herpes zoster in Adult ▾

See also in: [Cellulitis DDx](#), [Anogenital](#), [Hair and Scalp](#), [Oral Mucosal Lesion](#)

Look For

Grouped or confluent vesicles with scalloped borders on an erythematous base, best seen in lighter skin colors ("dew drops on a rose petal"), usually, but not always, confined to a distinct dermatome and not crossing the midline. The trigeminal nerve, especially the ophthalmic division, and the truncal dermatomes, from T3 to L2, are most often affected.

Early lesions may be grouped urticarial papules and plaques. Vesicles may be confluent, sparse, or discrete. After several days, the vesicles may become pustular, umbilicated, or hemorrhagic. Lesions typically crust over and resolve after 7-14 days. Scarring is common.

Impact of skin color on clinical presentation: Early manifestations of zoster including erythematous and urticarial papules and plaques may be more difficult to diagnose in darker skin colors as erythema may be a subtle finding. The presence of grouped papules and plaques that may be edematous, dermatomal, or have a sharp demarcation at the midline may serve as helpful clues.

Regional lymphadenopathy can occur. Pain, paresthesias, and/or pruritus may precede or accompany the appearance of rash.

Immunocompromised Patient Considerations:

In multidermatomal zoster, 2 or more adjacent dermatomes are involved, leading to a broader band of lesions. Cutaneous involvement may cross the midline. Lesions may be slow to heal, with subsequent formation of chronic ulcers; hyperkeratotic papules/plaques and verrucous lesions may eventuate. In patients with HIV, persistent subacute to chronic ulcers may be a manifestation of herpes zoster. In patients with significant immunosuppression, an adequate full skin exam may reveal widely scattered crusted papules, vesicles and erosions of disseminated zoster.

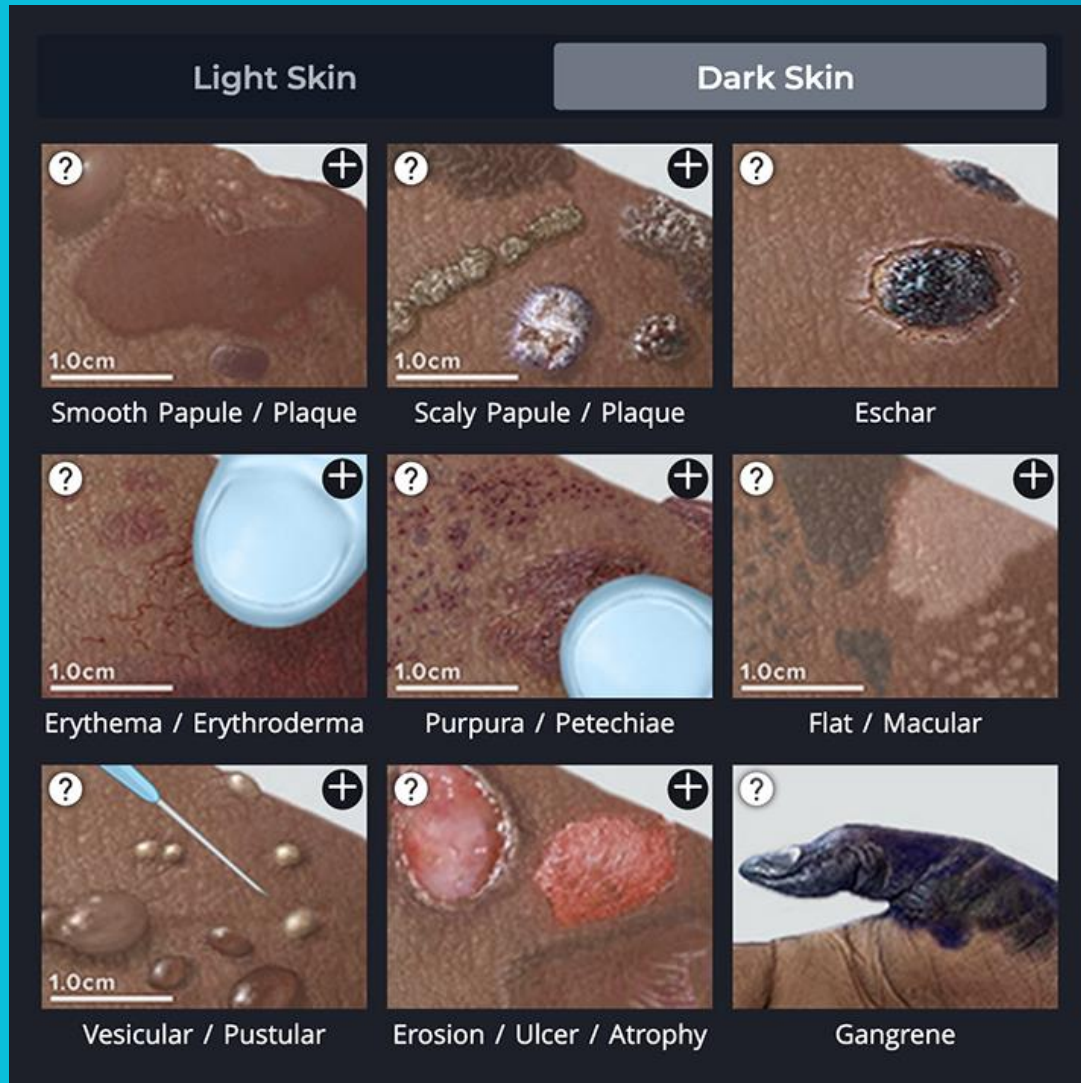
Access information on special considerations such as patients of color or immunocompromised conditions. Our editorial team continues to add clinical considerations throughout VisualDx.

Patient Assessment: Patient-Specific Workup

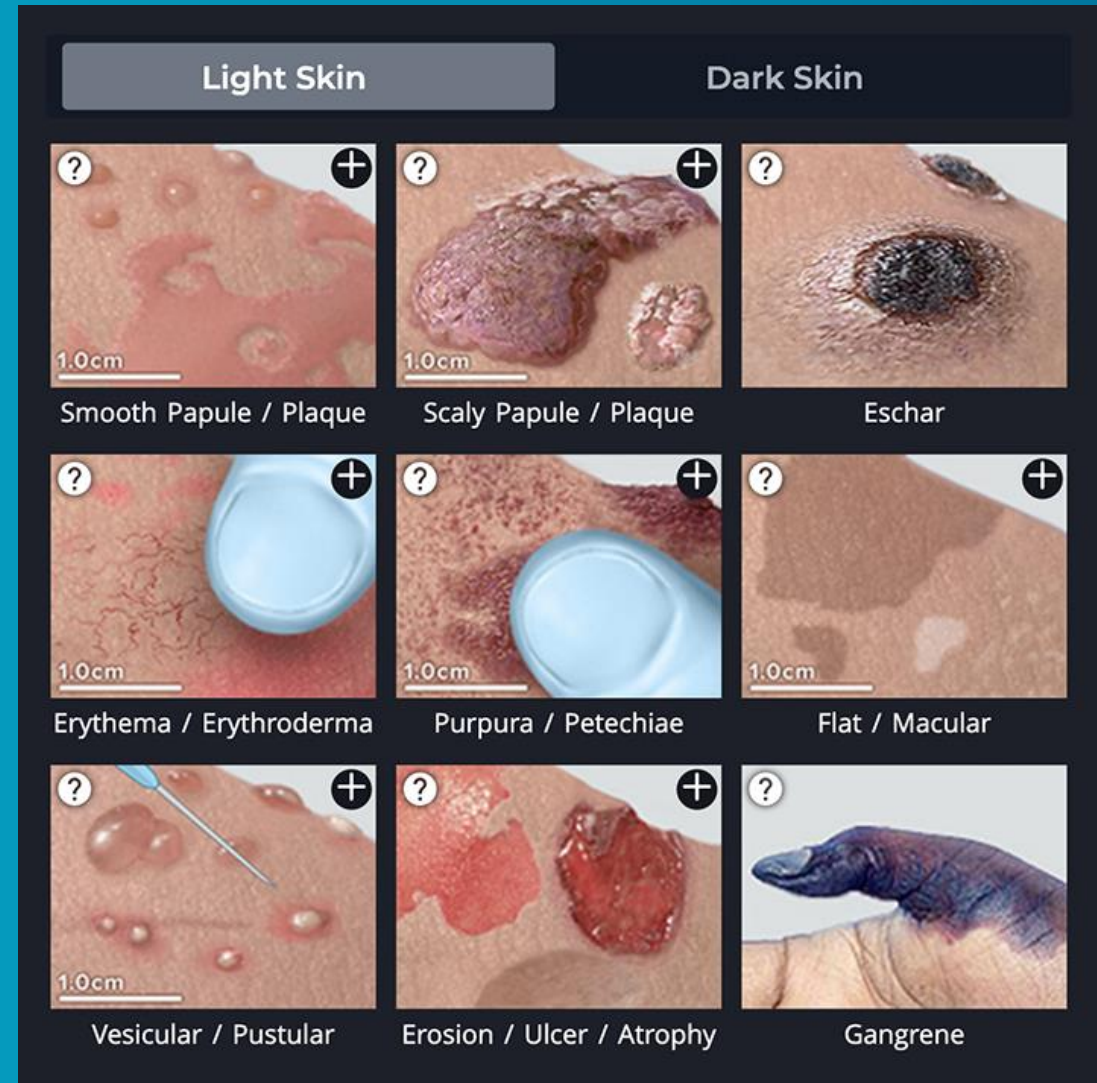
- Supports problem-based learning
- Triage the patient symptoms
- More than 4,100 symptoms and findings in both basic and clinical terminology
- More than 222,000 finding/diagnosis relationships

The screenshot shows the visualDx Patient Findings interface. At the top, the header reads 'visualDx / Patient Findings' with a search icon, a globe icon, a bell icon, and a 'Sign Out' link. Below the header, the main title is 'Workup for Fever' with a 'View this Differential' button on the right. A text input field labeled 'Additional Findings' is positioned below the title. The interface is divided into two main sections. On the left, a vertical sidebar lists various categories: 'Onset of findings', 'Appearance of patient', 'Vitals', 'Associated symptoms', 'Physical exam signs', 'Skin lesion type', 'Laboratory', 'Social history', 'Medical history', 'Travel history', 'Negative findings', and 'Additional Findings'. The 'Onset of findings' section is currently selected, displaying a list of checkboxes: 'Developed rapidly (minutes to hours)', 'Developed acutely (days to weeks)', 'Developed chronically (months to years)', 'Recurring episodes or relapses', and 'Present at birth'. On the right, the 'PATIENT INFO' section shows '50-59 year old' and 'Female' as dropdown menus. Below this, the 'FINDINGS' section displays a green dot next to the word 'Fever', with a close button (X) to its right. At the bottom of the findings section, there is a toggle instruction: 'Toggle the ● to make the finding required' followed by a help icon (?).

Clinical Medicine: Dermatology - Morphologies



Skin lesions on dark skin



Skin lesions on light skin

Clinical Medicine: Ophthalmology, ENT, and Oral



Oral White Plaque



Oral Pigmented Plaque



Oral Pigmented Macule / Patch



Oral Purpura / Vascular Growth



Oral Cyst / Vesicle



Oral Papule



Oral Nodule



Oral Tumor / Mass



Oral Erosion / Ulcer / Atrophy



Conjunctiva Abnormality



Eyelash Abnormality



Pupil / Lens / Iris Abnormality



Cornea / Anterior Chamber Abnormality



Sclera / Bulbar Conjunctiva



Eyelid / Eye Abnormal Position



Orbit / Eyelid Abnormality



Posterior Segment Abnormality



Skin Lesion

Clinical Medicine: Dermatology


LearnDerm™ | Powered by **visualDx.**Logout

Welcome to
LearnDerm™
Powered by **visualDx.**


We're here to help you build a solid foundation in dermatology through 5 interactive lessons. Take them at your own pace, use them as a study tool, see if your pattern recognition skills are improving. You can take the lessons in our suggested order or in any order you like.

[Get Started →](#)


Dermatology Lessons




1. The Skin Exam
Learn how to perform a skin exam on a patient.




2. Lesion Identification
Learn morphologic skin lesion terms and definitions. See examples in both light and dark skin.




3. Body Location & Distribution
Learn how distribution patterns and body locations can be used to develop a differential.



4. Recognizing Configurations
Learn the definitions for skin lesion configurations and see examples.



5. Morphologic Variation
Learn how variants in presentation and appearance can impact the diagnosis of skin disorders.



6. Atopic Dermatitis
Learn about atopic dermatitis and gain a fundamental understanding of the disease.

LearnDerm

Non-dermatologists learn terminology, pattern recognition skills, and dermatology fundamentals with 6 self-paced lessons and quizzes.

What's New in VisualDx?

Product Enhancements

Introducing VisualDx's New Compare View Feature

Compare View empowers clinicians to refine their differentials by providing a side-by-side comparison of visually similar conditions.

Clinical Education Center

Empowering Future Medical Professionals: Technology's Role in Medical Education

PACT Act Resources – Now Available on your VisualDx Dashboard!

Content Updates

August 2024: Mpox & Long COVID updates, new TNF-alpha inhibitor findings and more

June 2024: Rare dermatological images, new patient handouts and more

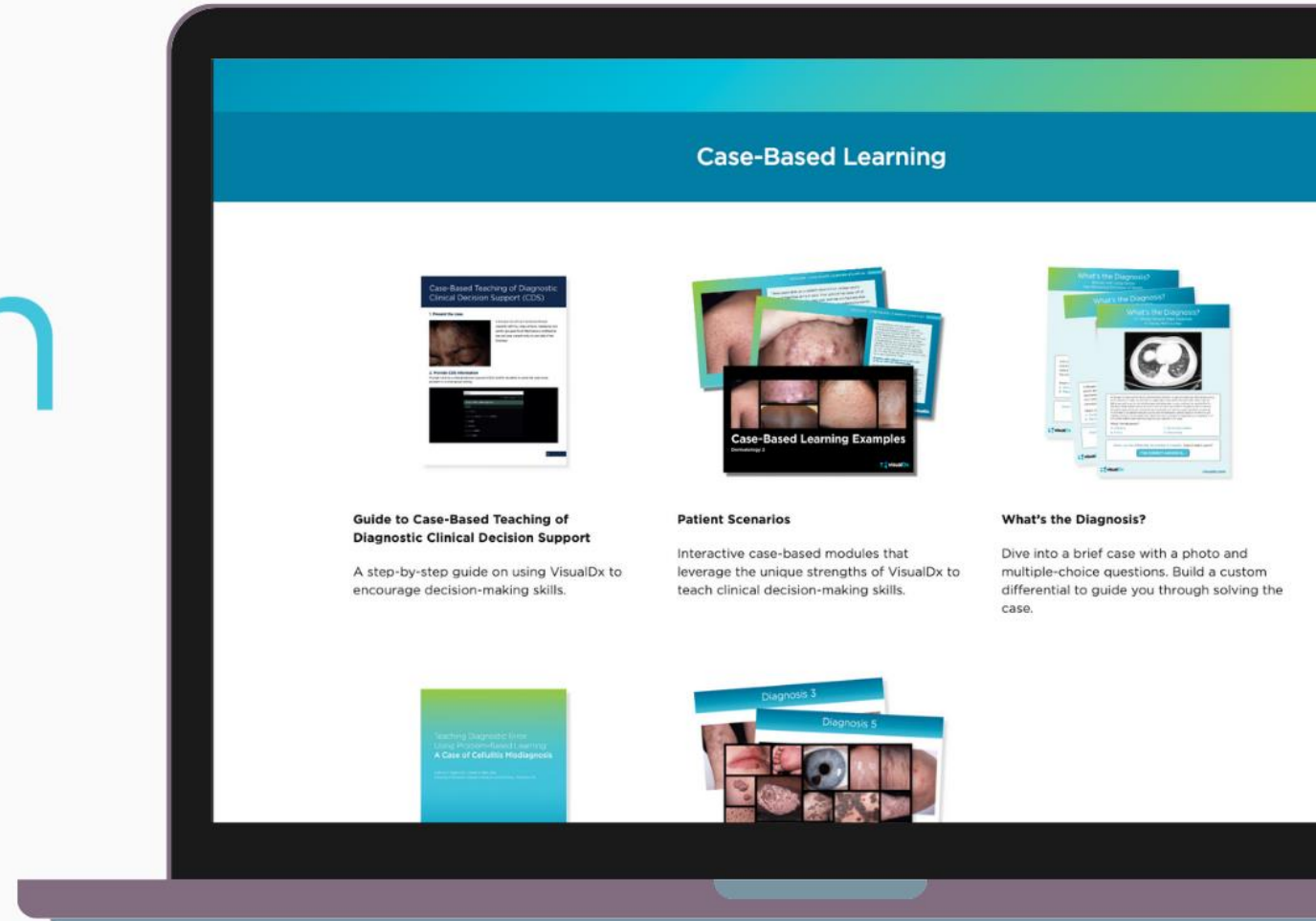
April 2024: Infectious disease outbreaks and neglected tropical disease images

February 2024: Additional images and medical illustrations and updates to recent public health outbreaks



Clinical Education Center

Educational resources created to instill lifelong information-seeking habits.



Clinical Education Center

Readily-available resources for classroom and remote learning:.



Case-Based
Learning



Dermatology
Training



On-Demand
Webinars



Image
Challenges

visualDx.

Global & National COVID-19 Resources

- [CDC Information](#)
- [WHO Information](#)
- [European Union Information](#)

VisualDx COVID-19 Resources

- [Enhance Telehealth with VisualDx](#)
- [Latest VisualDx Content and Images](#)

Additional Resources

- [How to earn CME credit for using VisualDx](#)
- [Clinical Education Center](#)
- [LearnDerm Self-study Dermatology Education Resource](#)
- [VA COVID-19 Public Health Page](#)
- [VA/DoD Clinical Practice Guidelines - VA/DoD Clinical Practice Guidelines](#)
- [Exposure Ed | VA Mobile](#)
- [Military Environmental Exposures Certifications | ACPM](#)
- [Exposure Topics A-Z - Public Health \(va.gov\)](#)

visualDx.

Enter a Symptom, Medication, or Diagnosis

Quick Start Differential Builder by Category

Start a differential by selecting a problem area

General Symptoms 	Dermatology All Skin Types 	Dermatology Skin of Color 	Ophthalmology 	ENT / Oral Medicine
Cardiac / Pulmonary 	Neurology / Psychiatric 	Genitourinary 	Gastrointestinal 	Drug Reactions

visualDx.

PACT Act Resources

Quickly access the information you need with dynamic links right on the homepage of VisualDx on the web.

Resources include:

- [VA/DoD Clinical Practice Guidelines](#)
 - [Exposure Ed | VA Mobile](#)
- [Exposure Topics A-Z - Public Health \(va.gov\)](#)
- [Military Environmental Exposures Certifications | ACPM](#)

Additional Resources

[How to earn CME credit for using VisualDx](#)

[Clinical Education Center](#)

[LearnDerm Self-study Dermatology Education Resource](#)

[VA COVID-19 Public Health Page](#)

[VA/DoD Clinical Practice Guidelines](#)

[Exposure Ed | VA Mobile](#)

[Military Environmental Exposures Certifications | ACPM](#)

[Exposure Topics A-Z - Public Health \(va.gov\)](#)



How can VisualDx help you?

- Evidence-based medicine at the point-of-care
- Improve diagnostic accuracy to improve patient outcomes
- Build patient confidence in your diagnosis through shared images and information
- See variations of disease to solve challenging diagnoses
- Access specialty-level knowledge to avoid unnecessary follow-up or referral appointments



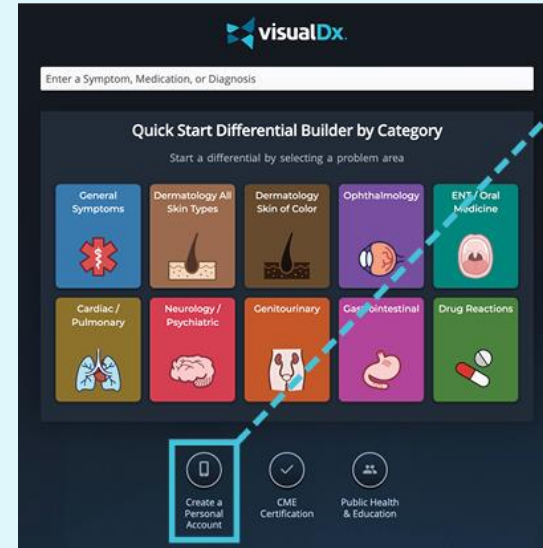
Create Your Personal Account

Bring VisualDx with you anywhere and everywhere.



How do I get access?

- 1 While on the VA network (onsite, VPN, or Citrix), go to www.visualdx.com/visualdx
- 2 Click **Create a Personal Account** and fill out the information to create a personal login account.
- 3 Search **VisualDx** in either the App Store or Google Play. Download and enter the username and password you created in Step #2. Congratulations, you're ready to go!
- 4 You can also access **VisualDx** through the [VHA National Desktop Library](#)



Create a Personal Account

E-mail (username)

Password

Password requirements

Verify Password

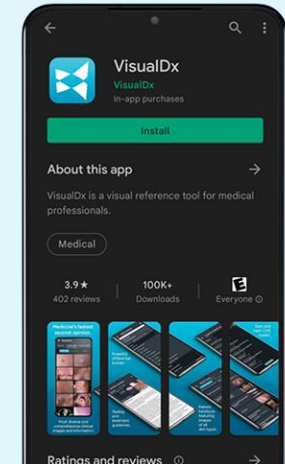
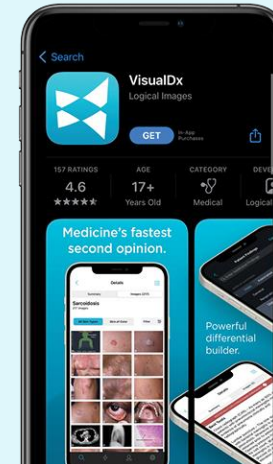
First Name

Last Name

Please Select Profession

Please Select Specialty

Create Personal Account



Internal and External Support Team

Internal

- Support - Contact
Library Network
Office
 - vhalno@va.gov

External



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