



#DaVinciCases

[Dermatology Case 2](#)



Dermatology 2

A 50-year-old male presents to clinic due to painful 'blisters.' He noticed one or two blisters on his legs 3 weeks ago that have progressively worsened and spread. On exam, the patient is ill-appearing with several scattered flaccid bullae present on the right and left calves extending to the ankles. A thorough examination reveals similar erosions within the mouth. The top layer of the patient's skin shears with slight applied pressure. What component in the skin is affected by this condition?

- A. Hemidesmosomes
- B. E-cadherin
- C. Intermediate filaments
- D. Integrins
- E. Desmoglein-1 and/or 3



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Key Findings

- Ill-appearing older adult
- Physical exam: Flaccid bullae on skin as well as mucosal surfaces
- Nikolsky sign +
- Differential:
 - Pemphigus vulgaris vs bullous pemphigoid



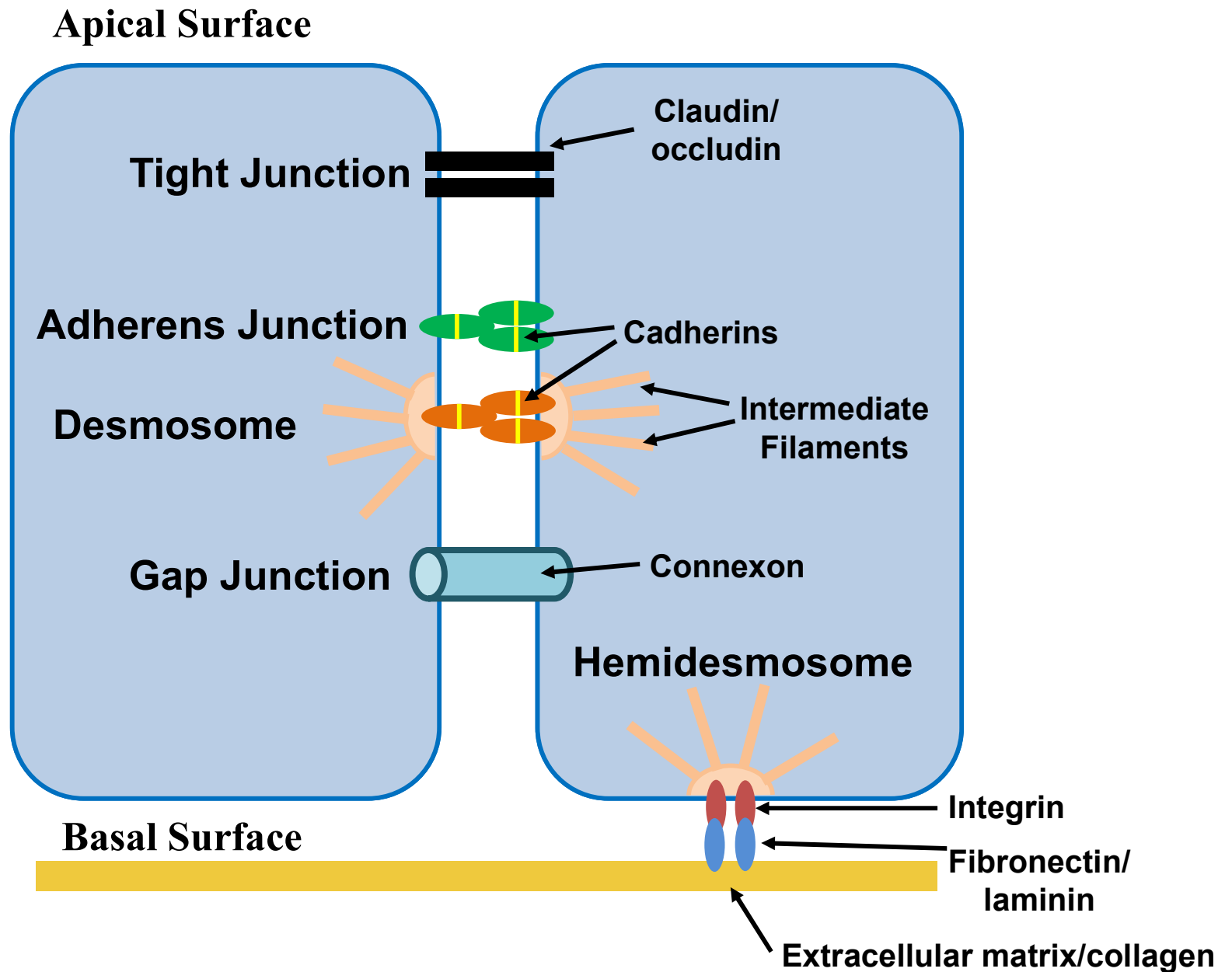
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<h2>Pemphigus Vulgaris</h2>	<ul style="list-style-type: none">•Life-threatening blistering disorder•Characterized by acantholysis resulting in the formation of intraepithelial blisters in the mucous membranes and skin•Most commonly seen in older adults•Type II hypersensitivity reaction•Mechanism: IgG antibodies against desmoglein-1 and/or desmoglein 3•P/E: flaccid intraepithelial bullae with oral mucosa involvement.•Nikolsky sign +•Immunofluorescence staining: reticular pattern around epidermal cells
<h2>Bullous Pemphigoid</h2>	<ul style="list-style-type: none">•Autoimmune blister disorder; less severe than pemphigus vulgaris•Commonly arise in older adults•Type II hypersensitivity reaction•IgG antibodies against hemidesmosomes•P/E: Tense blisters that contain eosinophils•No oral involvement*•Nikolsky sign -•Immunofluorescence staining shows a linear pattern at the epidermal-dermal junction



Dermatology 2

Epithelial cell junctions



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- A. Hemidesmosomes → affected in Bullous Pemphigoid (targeted by IgG Ab)
- B. E-cadherin → affected in cancers; a loss of E-cadherin facilitates metastasis
- C. Intermediate filaments → interact with desmosomes to promote structural stability
- D. Integrins → a membrane protein that maintains integrity of basolateral membrane (part of hemidesmosome)
- E. Desmoglein-1 and/or 3 → affected in Pemphigus Vulgaris (targeted by IgG Ab)**



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Website for images used in this presentation:
UAB Digital Dermatology Atlas
<https://sites.uab.edu/dermatologyatlas/>





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A C A D E M Y

