

Acne & Rosacea

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Acne & Rosacea

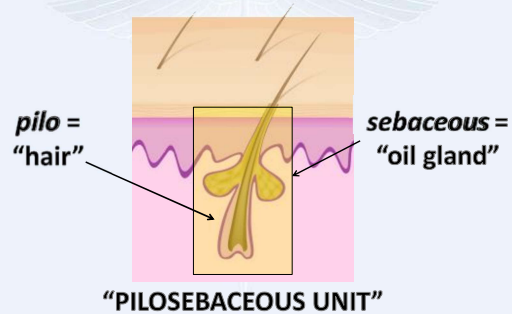
- “Breaking out” is one of the most common chief complaints in dermatology.
 - It can also create some of the most *time-consuming visits*, as these patients understandably have a lot of questions!
 - There is **quite a bit of misinformation** out there with regard to “breakouts”.

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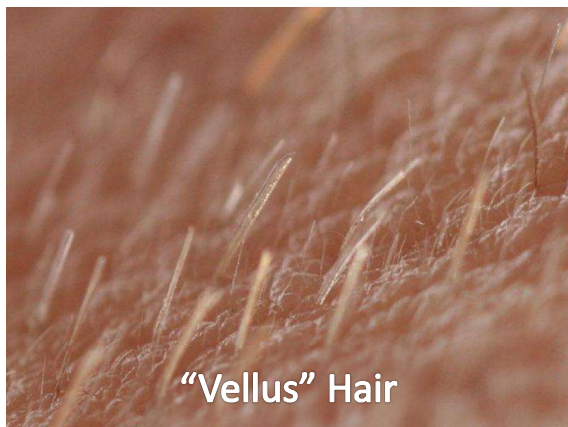
Acne

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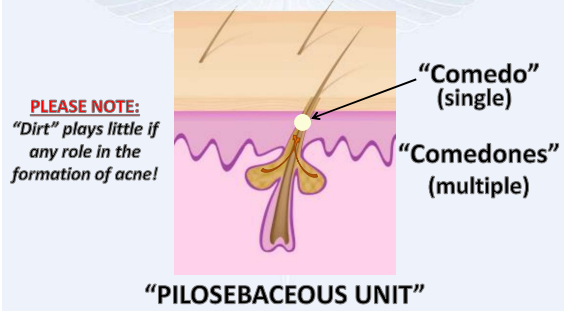
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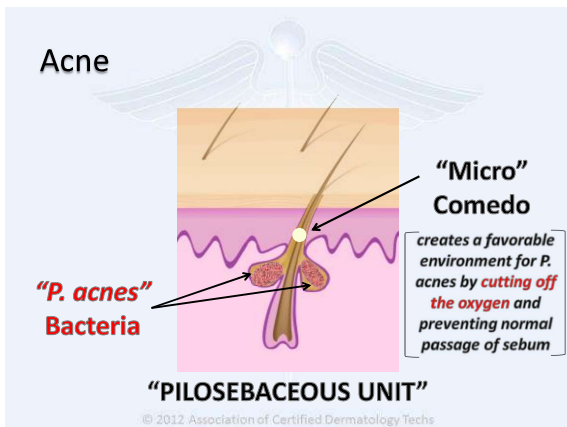
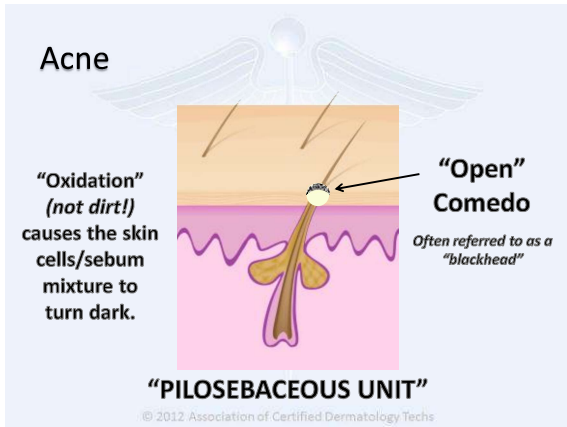
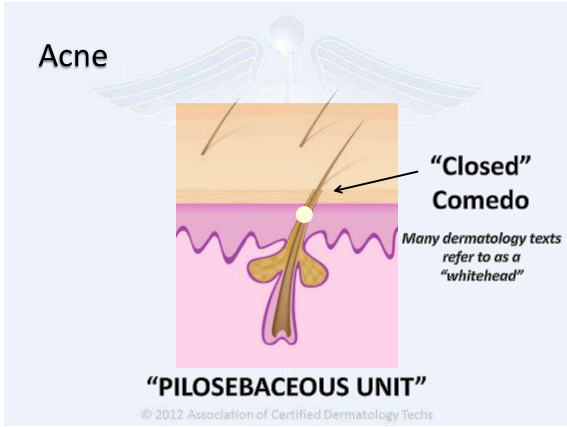
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Acne



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"INFLAMMATORY" ACNE

Acne

Factors Influencing Acne Formation

- **Androgens**
 - Including Testosterone, DHEA, DHT, and others.
Reasons for elevation include...
 - Puberty
 - Menstrual Cycle
 - Stress
 - Corticosteroids

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Acne

Factors Influencing Acne Formation

- **Androgen Sensitivity**
 - "Genetics" is the primary factor.
 - Two people can have the *exact same hormone levels*, but their sebaceous glands and skin cells lining the follicles **react to those same hormone levels in two very different manners.**
 - And our "sensitivity" may change throughout life.
 - Especially in women!

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Acne

General Treatment Approaches

- "Pore Unclogging" Medications
 - Primarily includes *Retinoids* and *Salicylic Acid*.
 - Prevent the "comedo" from forming, thereby interrupting the cycle of open/closed comedo and inflammatory acne papule development.

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General Treatment Approaches

- **Antibiotics**
 - Available in both "topical" and "systemic" form.
 - Work by decreasing the number of *P. acnes* bacteria in the sebaceous glands. This, in turn, decreases the inflammation that the bacteria creates.
 - Some antibiotics have an "anti-inflammatory" effect which is unrelated to their ability to kill bacteria.

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Acne

General Treatment Approaches

- Hormonal
 - Primarily OCPs and Spironolactone.
 - By either “regulating” the patient’s hormones, or “blocking” their effect in the skin, the factors influencing acne formation can be prevented in the first place!

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General Treatment Approaches

- Isotretinoin
 - Helps “normalize” the way skin cells in the follicle shed, thereby preventing comedo formation.
 - Decreases sebum production.
 - By doing the above, it greatly lowers *P. acnes* count.

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Acne

Patient Counseling Considerations

- *There is arguably no other condition for which managing patient expectations is so critical!*

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Acne

Patient Counseling Considerations

- **No treatment is 100% effective in all patients.**
 - Every patient’s “chemistry” is different.
 - Treatment usually involves a “stepwise” approach, in which medicine is prescribed, the patient is later re-evaluated, and adjustments made accordingly.

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Patient Counseling Considerations

- **Medicines take time to work!**
 - Even the “strongest” medications take *at least* several weeks (and usually longer) to even begin to “kick-in”.

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Acne

Patient Counseling Considerations

- **Medicines won't work if not used!**
 - Patients may return frustrated with lack of results, yet admit to not using medication as directed.
 - Especially true in younger patients.

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Acne

Patient Counseling Considerations

- **Acne is *not* due to lack of hygiene.**
 - Believing this can not only cause patients to feel self-conscious and embarrassed, but can also lead to overly-aggressive cleansing habits.
 - Acne cleansers don't improve acne by "cleansing", but instead *the cleanser is simply used as a medium to deliver the "active ingredient" (e.g., Benzoyl Peroxide, Salicylic Acid, etc.).*

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Acne

Patient Counseling Considerations

- **Acne affects every patient differently!**
 - We should always try our best to be compassionate and understanding in our efforts to address these patients' needs...whether they have just a "pimple or two", or scarring nodulocystic acne.

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Rosacea

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Rosacea

What Is Rosacea?

Definition

Chronic skin condition involving the central face, characterized by increased vascularity, flushing, and acneiform inflammation. However, presentations and symptoms *can vary significantly* from patient to patient.

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Rosacea

What Causes Rosacea?

- Infection?
 - *P. acnes*
 - Many *P. acnes* antibiotics seem to help Rosacea.
 - *Demodex folliculorum*
 - Microscopic mite which is common in our pores.
 - *Bacillus oleronius*
 - Bacteria associated with Demodex.
 - Intestinal Bacteria?

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What Causes Rosacea?

- Genetics?
 - Those with “Celtic” ancestry (i.e., English/Irish) are much more prone to Rosacea.
 - But what specifically about such genetics plays a role?
 - How to explain Rosacea in those with no such ancestry?

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Rosacea

What Causes Rosacea?

- Overactive Immune Response?
 - Rosacea-affected skin has been shown to have increased levels of “cathelicidin peptides”.
 - The “cathelicidin peptides” are normally created to fight off infection.

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Rosacea

What Causes Rosacea?

- Role of Vascularity?
 - Those with Rosacea do tend to exhibit an increased tendency toward “flushing”. However, “flushing” (or even prominent blood vessels) *does not* define Rosacea.
 - Inflamed vessels are more permeable (“leaky”).
 - Does this “leakage” *induce* Rosacea, or is it a *result* of the inflammation?
 - Increased vascular congestion in the dermis.
 - But is it a *cause* or an *effect*?

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Myth

Rosacea *is not* a sign of alcohol abuse!

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W.C. Fields

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Rosacea

Other Variations

- The vast majority of patients with Rosacea will simply present with chronic flushing and/or acneiform inflammation. *However, other variations include...*
 - *Phymatous Rosacea*
 - Occurs when vascular congestion and repeated inflammation leads to thickened, scar-like changes.
 - *Ocular Rosacea*
 - Patients often report “gritty” irritation of their eyes.
 - In dermatology, we play a limited role in treating.

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General Treatment Approaches

- Avoid Triggers
 - For some, avoidance of triggers is all it takes to keep Rosacea under control.
 - For most, though, avoidance “helps”, but doesn’t completely eliminate flares.

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Rosacea

General Treatment Approaches

- “Gentle” Facial Care
 - Avoid harsh cleansing, scrubbing, irritating facial products, etc.
 - Anything that “riles up” the skin can trigger a Rosacea flare!
 - These patients may find that they’ve become *more “sensitive”* to preservatives, fragrances, alpha-hydroxy acids, etc. than they used to be.

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Rosacea

General Treatment Approaches

- Antibiotics
 - Can be taken systemically, applied topically, or both.
 - e.g., Metronidazole 0.75% Gel, Doxycycline.
 - Their mechanism of action remains uncertain.
 - Do they work by killing bacteria? Or do they help because of an “anti-inflammatory” effect? Both?
 - Particularly helpful for “acneiform” inflammation.

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Rosacea

General Treatment Approaches

- Topical Anti-Inflammatories
 - Work by directly addressing *inflammation*.
 - e.g., Protopic® or Elidel®.
 - Seem to be more effective at treating “redness and inflammation” than the “acneiform” component.
 - Not “indicated” for rosacea, though, so insurance may not provide coverage.

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Rosacea

General Treatment Approaches

- Retinoids
 - Usually applied topically (e.g., Retin-A®, Differin®, etc.) or may be taken systemically (i.e., Isotretinoin).
 - Their use can be *very tricky!*
 - Topical retinoids are notorious for causing irritation.
 - Different patients may experience very different results.
 - Isotretinoin may help “acneiform” inflammation, but provide little improvement for flushing/redness.

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Rosacea

General Treatment Approaches

- Laser & Light Therapy
 - Vascular Laser (e.g., Pulsed Dye, Alexandrite, etc.) and Intense Pulsed Light (IPL).
 - Work by destroying the smaller vessels within the treatment sites.
 - Doing so can help decrease visible telangiectasias, flushing, and vascular inflammation.
 - Doesn't work for everyone, but when it does, the results can be impressive.

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Rosacea

General Treatment Approaches

- Alternative Treatments
 - Treatment of intestinal bacteria?
 - Antihistamines?
 - Those who find improvement may simply have a food allergy.
 - α -Adrenergic Receptor Antagonists?
 - Homeopathic Remedies?
 - “Others”

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Rosacea

Prognosis

- Rosacea isn't something that patients *outgrow*, but instead is something that they *grow into*.
- They will **always be at risk for flaring** and there is **no “cure”**.
 - This *doesn't mean* that they'll always be broken out!
 - The right treatment approach will *greatly decrease the frequency and intensity of flares*.
 - Some will report a “remission”, but inflammation invariably returns at some point.

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CONCLUSION

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