# ROSACEA

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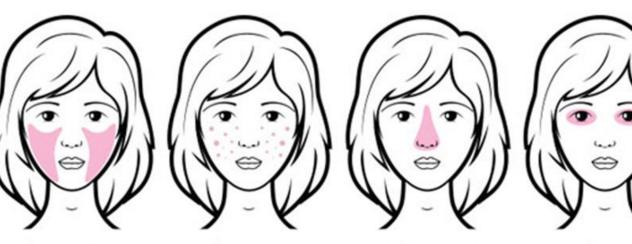
### WHAT IS ROSACEA?



Image courtesy of Cynthia Bailey, MD

- Rosacea is disorder involving chronic inflammation of the cheeks, nose, chin, forehead, or eyelids; it may cause redness, vascularity (increased prominence of the blood vessels), swelling or hyperplasia (increase in size of the tissue), or skin eruptions similar to acne. <a href="https://www.ailesburylitecork.ie/rosacea">https://www.ailesburylitecork.ie/rosacea</a>
- This common skin disease can cause more than redness. There are so many signs and symptoms that Rosacea has four subtypes:
  - Erythematotelangiectatic rosacea: Redness, swelling, and acne-like breakouts
  - <u>Papulopustular rosacea</u>: Redness, swelling, and acne-like breakouts
  - Phymatous rosacea: Skin thickens and has bumpy texture
  - <u>Ocular rosacea</u>: Eyes red and irritated, eyelids can be swollen, and a person may have what looks like a sty. https://www.aad.org/public/diseases/acne-and-rosacea/rosacea

# **Rosacea Subtypes**



Subtype 1: Facial flushing & persistent redness Subtype 2: Bumps & pimples, raised red patches Subtype 3: Enlarged nose Subtype 4: Eye irritation



## SYMPTOMS

- Stinging and burning of the skin
- Patches of rough, dry skin
- A swollen, bulb-shaped nose
- Larger pores
- Broken blood vessels and/or bumps on your eyelids
- Problems with seeing
- The biggest thing you'll notice is redness on your cheeks, nose, chin, and forehead. Less often, the color can appear on your neck, head, ears, or chest.
- After a while, broken blood vessels might show through your skin, which can thicken and swell up. Up to half of people with rosacea also get eye problems like redness, swelling, and pain.



## TRIGGERS

- ENVIRONMENT

- SUN, WIND, HEAT
- FOODS
  - SPICY
- BEVERAGES
  - HOT, CAFFEINATED, ALCOHOL
- MEDICAL CONDITIONS
- LIFE STYLE

•

- MENOPAUSE, COUGHING

- STRESS, ANXIETY, EXERCISE



Hot Drinks (36%)

(36%)

**Cold Weather** 

Hot Baths

Wind (38%)

(37%)

#### Most Common Rosacea Tripwires

Skin-Care Products (24%)

Sun Exposure (61%)

Emotional

Stress (60%)

#### TOPICALS AVAILABLE





| Drug name 🗘     | Rx / OTC | Preg CSA   | Alcohol        | Reviews 🛇   | Rating 🗘 | Popularity 🔨 |
|-----------------|----------|------------|----------------|-------------|----------|--------------|
| ✓ doxycycline   | Rx       |            | $\bigotimes$   | 90 reviews  | 8.0      |              |
| ✓ metronidazole | Rx       | B N        | $\mathbf{x}$   | 65 reviews  | 6.0      |              |
| ✓ MetroGel      | Rx       | B N        | $\mathbf{x}$   | 20 reviews  | 5.0      |              |
| ✓ Finacea       | Rx       | BN         |                | 42 reviews  | 7.0      |              |
| V Oracea        | Rx       |            | $(\mathbf{x})$ | 40 reviews  | 8.0      | _            |
| V minocycline   | Rx       |            |                | 30 reviews  | 8.0      | _            |
| ✓ Doryx         | Rx       |            | $\mathbf{x}$   | 2 reviews   | 10       | _            |
| ✓ MetroCream    | Rx       | B N        | $\mathbf{x}$   | 7 reviews   | 5.0      | _            |
| ✓ Mirvaso       | Rx       | B N        | $\mathbf{x}$   | 114 reviews | 3.0      |              |
| ✓ Azelex        | Rx       | B N        |                | 4 reviews   | 9.0      |              |
| ➤ azelaic acid  | Rx       | B N        |                | 56 reviews  | 8.0      | -            |
| ✓ Soolantra     | Rx       | <b>C N</b> |                | 129 reviews | 7.0      | -            |
| ✓ Doxy 100      | Rx       |            | $\mathbf{x}$   | 1 review    | 9.0      | -            |
| V Solodyn       | Rx       |            |                | 3 reviews   | 10       | -            |
|                 |          |            |                |             |          |              |

https://www.drugs.com/condition/acne-rosacea.html

## DIAGNOSIS



- There's no specific test for rosacea. Instead, doctors rely on the history of the patient's symptoms and a physical examination of the skin. In some cases, the doctor may have the patient undergo tests to rule out other conditions, such as other forms of acne, psoriasis, eczema or lupus. These conditions can sometimes cause signs and symptoms similar to those of rosacea.
- If the eyes are involved, the patient may referred to an ophthalmologist.

### TREATMENT

- Treatment for rosacea focuses on controlling signs and symptoms. Most often this requires a combination of skin care and prescription treatments.
- The duration of your treatment depends on the type and severity of your symptoms. Recurrence is common.









## MEDICATIONS

The type of medication your doctor prescribes depends on what signs and symptoms you're experiencing. Prescription drugs for rosacea include:

- **Medications that reduce redness.** Recent studies have shown the drug brimonidine (Mirvaso) to be effective in reducing redness. It is applied to the skin as a gel. It works by constricting blood vessels. You may see results within 12 hours after application. The effect on the blood vessels is temporary, so the medication needs to be applied regularly to maintain any improvements seen.
- Other topical products that have been shown to reduce redness and the pimples of mild rosacea are azelaic acid and metronidazole. With these drugs, improvements generally don't appear for three to six weeks.
- **Oral antibiotics.** Antibiotics help reduce some types of bacteria but likely mainly fight inflammation when used for this disease. Doxycycline is an antibiotic taken as a pill for moderate to severe rosacea with bumps and pustules. Other similar oral antibiotics are also sometimes used (tetracycline, minocycline, others), but their effectiveness isn't as well-supported by studies.
- **Isotretinoin.** If you have severe rosacea that doesn't respond to other therapies, your doctor may suggest isotretinoin (Amnesteem, Claravis, others). It's a powerful oral acne drug that also helps clear up acne-like lesions of rosacea. Don't use this drug during pregnancy as it can cause serious birth defects.

#### THERAPIES / REMEDIES / ALTERNATIVES

#### • THERAPIES

• <u>Laser therapy</u> may help reduce the redness of enlarged blood vessels. Other options for treating visible blood vessels and changes due to rhinophyma are <u>dermabrasion</u>, intense <u>pulsed light therapy and electrosurgery</u>.

#### LIFESTYLE AND HOME REMEDIES

- Avoid triggers. Know what tends to cause flare-ups for you and avoid those triggers.
- **Protect your face.** Apply sunscreen daily. Use a broad-spectrum sunscreen with an SPF of 30 or higher. Take other steps to protect your skin, such as wearing hats and avoiding midday sun. In cold, windy weather, wear a scarf or ski mask.
- **Treat your skin gently.** Don't rub or touch your face too much. Use a nonsoap cleanser and moisturize frequently. Avoid products that contain alcohol or other skin irritants.
- **Apply makeup.** Some makeup products and techniques may help reduce the appearance of skin redness. For example, apply green-tinted makeup before a light liquid foundation. Or try a light dusting of green-tinted facial powder.
- ALTERNATIVES
  - Gentle daily facial massage may help reduce swelling and inflammation. Use a circular motion with your fingers starting on the central part of the face and work toward the ears.
  - Many other alternative therapies including colloidal silver, emu oil, Laurelwood and oregano oil have been touted as possible ways to treat rosacea. But no conclusive evidence supports the idea that any of these substances are effective.

## COPING AND SUPPORT



- Rosacea can be distressing. You might feel embarrassed or anxious about your appearance and become withdrawn or self-conscious. You may be frustrated or upset by other people's reactions. Talking to a counselor about these feelings can be helpful.
- A rosacea support group, either in person or online, can connect you with others facing the same types of problems which can be comforting.
- Preparing for your appointment
- You're likely to start by seeing your family doctor or a general practitioner. Or when you call to set up an appointment, you may be referred to a skin disease specialist (dermatologist). If your condition affects your eyes, you may be referred to an eye specialist (ophthalmologist).
- It's a good idea to prepare for your appointment. Here's some information to help you.

### FACTS

#### **Face facts**

- Even though living with rosacea may feel challenging, remember that you are not alone. Rosacea affects an estimated 16 million Americans.
- Living with rosacea often goes beyond the physical symptoms. For some, the physical symptoms of rosacea can have a significant emotional impact. In a survey conducted by the National Rosacea Society of more than 1,200 rosacea patients:
- 76% of patients surveyed said rosacea lowered their selfconfidence
- 41% said it caused them to avoid public or social engagements
- Sound familiar? Seek help! Studies on rosacea patients found that as symptoms improved with effective treatment, so did quality of life.

#### Estimated Rosacea Prevalence In U.S. Adult Population\*



\*Based on National Rosacea Society membership as a proportion of state populations over 18

#### TREATMENTS / THERAPIES CONT.

- IPL
- LED
- Prescriptions oral
- Topicals
- Laser

#### MAINTENANCE

- Improve life style
- Watch what you eat/drink
- Fluctuating temps
- Watch UV exposure
- Apply topicals daily, as preventative



#### CAMOUFLAGE / COVER-UP



#### CLINICAL PAPERS



## RHINOPHYMA





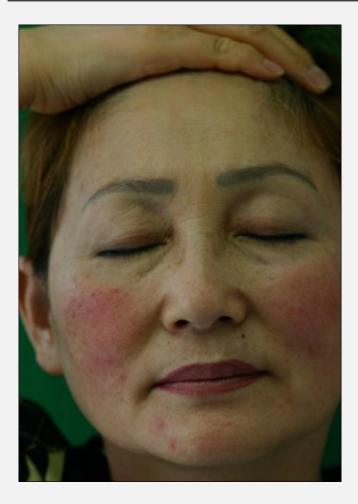


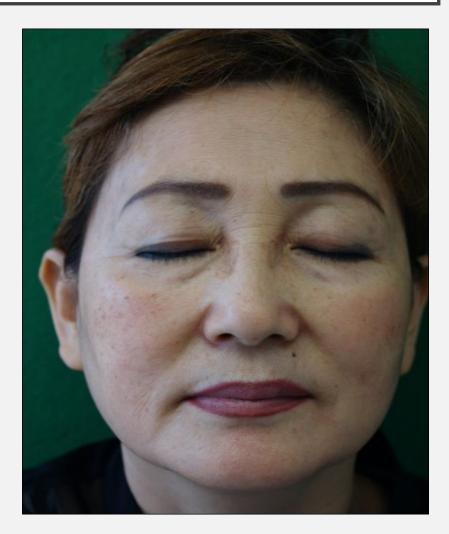
## FEMALE





#### BEFORE AND AFTER LED

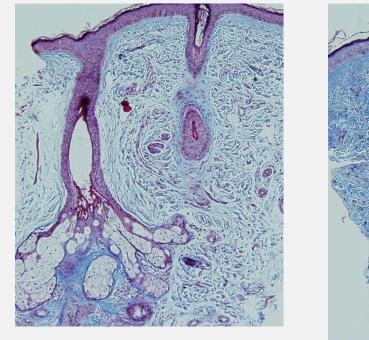


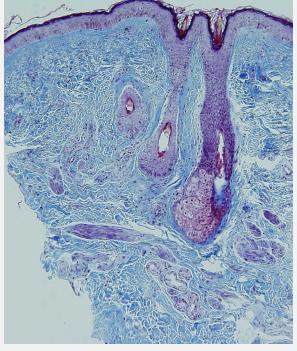


#### CLINICAL EVIDENCE

Ultrastructural changes in skin at 6 weeks.

Particular emphasis on collagen deposition. Increases in tighter better organized collagen





Lee SY et al. 'A prospective, randomized, placebo-controlled, double-blinded, and split-face clinical study on LED phototherapy for skin rejuvenation: Clinical, profilometric, histologic, ultrastructural, and biochemical evaluations and comparison of three different treatment settings.' Journal of Photochemistry and Photobiology B: Biology 88; (2007): 51–67

# LED

• NASA - examined the use of light in space to encourage plant growth and discovered that it stimulated cellular repair helping to promote wound healing and human tissue growth.

Whelan, Harry T., et al. "Effect of NASA light-emitting diode irradiation on wound healing." *Journal of clinical laser medicine* & surgery 19.6 (2001): 305-314.

- Over 1000 randomized clinical studies and many in vitro studies demonstrating the effects of phototherapy on a range of indications.
  - RCT's have demonstrated positive effects on many medical and aesthetic conditions.
  - In vitro studies have helped us understand the complex nature of phototherapy



#### CLINICAL EVIDENCE MECHANISM OF ACTION

