This document has been written for clinicians. The content was developed by the Integrative Medicine Program, Department of Family Medicine, University of Wisconsin-Madison School of Medicine and Public Health in cooperation with Pacific Institute for Research and Evaluation, under contract to the Office of Patient Centered Care and Cultural Transformation, Veterans Health Administration.

Information is organized according to the diagram above, the *Components of Proactive Health and Well-Being*. While conventional treatments may be covered to some degree, the focus is on other areas of Whole Health that are less likely to be covered elsewhere and may be less familiar to most readers. There is no intention to dismiss what conventional care has to offer. Rather, you are encouraged to learn more about other approaches and how they may be used to complement conventional care. The ultimate decision to use a given approach should be based on many factors, including patient preferences, clinician comfort level, efficacy data, safety, and accessibility. No one approach is right for everyone; personalizing care is of fundamental importance.
WHOLE HEALTH: CHANGE THE CONVERSATION
Rosacea
Clinical Tool

Background

Rosacea is a common chronic condition that may affect up to 10% of people with fair skin. It is generally more common in women over the age of 30. There are four clinical subtypes: (1) Erythematotelangiectatic rosacea is characterized by flushing and redness of the central face. (2) Papulopustular rosacea is characterized by acne-like papules and pustules of the central face. (3) Ocular rosacea is characterized by redness, itching, and irritation of the eyes. (4) Phymatous rosacea is characterized by thickening of the facial skin—especially of the nose, chin, and cheeks—and is the least common. A person may have only one subtype or may present with a combination of subtypes. Erythematotelangiectatic and papulopustular are the most common forms seen in the general population. Many people with rosacea also have sensitive skin and may experience stinging and burning with many personal care products.

The causes of rosacea are not well understood but appear to include:

1. Immune system regulation of responses to microorganisms and trauma—including ultraviolet (UV) radiation.

2. Higher levels of immune system proteins known to promote inflammation and blood vessel proliferation.\(^1\)

3. Heightened inflammatory reaction to *Demodex folliculorum* (a mite found in most people, but present in higher numbers on the skin of people who have rosacea) and a bacterium that is found in the GI tract of this mite.\(^2\)

4. Dysfunction of cutaneous blood vessels—likely related to immune and inflammatory reactivity.\(^3\)

5. Possibly small bowel overgrowth. One group of researchers found higher rates of small bowel overgrowth in patients with rosacea, and treatment with antibiotics resulted in significant improvement or clearance of the rosacea symptoms.\(^4\)

There are many potential triggers for rosacea flares including sun exposure, extreme temperature exposure, rapid changes in temperature, exercise, spicy foods, hot beverages or foods, alcohol, irritation from topical skin care products, emotional states—especially anger, rage, or embarrassment—and some medications (beta-blockers and niacin).
Treatment

**Identify and avoid triggers**
It is important to minimize flares of rosacea because repeated flares result in more vigorous inflammatory responses with each subsequent flare. Although there is a long list of potential triggers that are common, an individual may react from one to several known triggers or have triggers not on the list. Keeping track in a journal of when and where rosacea flares occur can help identify which substances or activities result in flares for an individual. Once a flare has been triggered, using a cool mist or compress to the skin will help limit the extent of the flushing episode. This will limit overall inflammation as well as serve to increase comfort during the flare.

**Skin care**
Because people with rosacea tend to have more sensitive skin, it is important to treat the skin gently. The face should be washed with warm water using a gentle circular motion with the fingertips. Only a gentle pH-balanced cleanser or soapless cleanser should be used. Once the face is dry, a gentle, non-alkaline moisturizer can be applied to the skin. Ceramide-containing moisturizers may be particularly helpful. Harsh soaps and abrasive cleansing will likely worsen symptoms and should be avoided.

Minimizing exposure to chemicals that can irritate the skin is an important part of managing rosacea. Common potential irritants include acetone, alcohol, propylene glycol, alpha-hydroxy acids, sodium lauryl sulfate, benzalkonium chloride, formaldehyde releasers, menthol, benzyl alcohol, camphor, urea, pyrrolidone carboxylic acid, lanolin, and fragrances.

Since UV exposure can be a trigger for many patients, wearing a daily broad spectrum sunscreen is important. Because skin sensitivity is often a concern for people with rosacea, sunscreens formulated for people with sensitive skin or for babies are good choices.

**Nutrition**
- **Anti-inflammatory diet**
  Healthy dietary choices are important for overall health. Anti-inflammatory or Mediterranean-style dietary approaches have been found to enhance many aspects of health—especially in the setting of inflammatory diseases. Research supports that eating a plant-based diet low in processed foods, like an anti-inflammatory diet, helps to support healthy gut microflora, which may have beneficial effects on many inflammatory conditions including rosacea. More information about these dietary approaches can be found in the Choosing an Effective and Safe Dietary Supplement clinical tool.
Supplements

- Omega-3 fatty acids
  Omega-3 fatty acids have been shown to decrease the production of inflammatory compounds. Ideally, omega-3-fatty acids would come from foods such as fatty fish (salmon, mackerel, and sardines), flaxseeds, and walnuts. When that is not possible, supplements can be helpful. The omega-3’s found in flax are not as potent in terms of anti-inflammatory effects as those in fish oil. For more information, see the section on fats in the Food and Drink educational overview.

  Dose:\[8\]: 1 tablespoon of flax oil for every 100 pounds daily
  1-2 tablespoon ground flaxseeds daily
  1-2 gram(s) fish oil capsules twice a day

- Probiotics
  While probiotics have not specifically been looked at as treatment for rosacea, the correlation of small intestinal bacterial overgrowth with symptoms of rosacea certainly suggest that supporting a healthier gut microflora may impact the severity of rosacea symptoms.

  Hopefully, more research will be done to help clarify the specific doses and strains that are most likely to be helpful in specific skin conditions like rosacea. Interestingly, dietary practices do appear to influence the effectiveness of supplemental probiotics. (See above section on nutrition.)

For more information see the clinical tool, Promoting a Healthy Microbiome with Food and Probiotics.

Topical over-the-counter medications

- Do not use topical steroids!
  While topical steroids may help temporarily with symptoms of rosacea, they can worsen symptoms in the long run, and a rebound with worsening of symptoms can occur after the topical steroid is stopped.\[9,10\] Additionally, over time, topical steroids can cause thinning of the skin. There are some situations when a doctor may recommend topical steroids for short periods of time, but steroid use should be closely monitored.
Other Therapies to Consider

Mind-body
While there aren’t many studies looking at the effect mind-body approaches (such as meditation, hypnosis, and biofeedback) have on rosacea, they do have clear benefits for regulating emotional states. These types of approaches may be particularly helpful for patients who have clear emotional triggers for their symptoms. For more information, see the Power of the Mind module.

Additionally, information and support can be found online at www.rosacea.org and www.rosacea-support.org.

Prevention Summary: Rosacea

- Identify and avoid triggers.
- Take gentle care of your skin, and minimize potential irritants (e.g., fragrance).
- Take an anti-inflammatory dietary approach: reduce intake of refined carbohydrates.
- Consider taking an omega-3 supplement.
- Consider looking into the possibility that small intestinal bacterial overgrowth may be contributing to symptoms and seek evaluation and treatment for this condition.
- Learn about different approaches for stress management.

Whole Health: Change the Conversation Website

Interested in learning more about Whole Health?
Browse our website for information on personal and professional care.

http://projects.hsl.wisc.edu/SERVICE/index.php

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References

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