PATIENT SYMPTOM GUIDE

Demodex Mite Overgrowth

A clinical reference for patients and caregivers

~90%	1 in 4	2 species
of adults carry Demodex mites as part of normal skin flora	patients with rosacea have elevated mite density on clinical testing	affect human skin: D. folliculorum and D. brevis

About this guide

This document is intended to help patients recognise symptoms that may be consistent with Demodex mite overgrowth, understand the affected sites, gauge approximate severity, and know when to seek professional evaluation. It is not a diagnostic instrument. A confirmed diagnosis requires clinical assessment by a qualified practitioner.

What Are Demodex Mites?

Demodex are obligate parasitic mites that reside within pilosebaceous units of human skin. Two species are recognised as human commensals. **Demodex folliculorum** (0.3 to 0.4 mm) colonises the infundibulum of hair follicles, particularly around the eyelashes, nose, and cheeks. **Demodex brevis** (0.15 to 0.2 mm) inhabits the deeper sebaceous and meibomian glands. Low-density colonisation is considered physiologically normal in most adults. Clinical demodicosis occurs when mite density exceeds the threshold at which immune tolerance breaks down, typically exceeding five mites per square centimetre on surface biopsy.

Mechanisms of Pathology

Pathological consequences arise through several mechanisms: physical obstruction of follicular openings; immune activation triggered by mite surface proteins, particularly the bacterium *Bacillus oleronius* carried within the mite gut; disruption of the epidermal barrier; and mechanical damage caused by the mites as they migrate between follicles during nocturnal reproductive activity. These processes collectively drive the inflammation, dyspigmentation, and textural changes patients experience.

Who Is at Increased Risk?

Factors associated with elevated mite density include advancing age (counts increase progressively after the fourth decade), immunosuppression from any cause, prolonged topical corticosteroid use on the face, high sebum production, compromised skin barrier function, and certain systemic conditions including HIV infection, leukaemia, and inflammatory skin disorders. Rosacea patients show mite counts three to eighteen times higher than age-matched controls.

Symptom Zones by Anatomical Location

Symptoms vary according to the body site colonised and the dominant mite species present. The following zones represent the most commonly affected areas in clinical demodicosis.

Facial Skin

Persistent central facial erythema or flushing. Rough, sandpaper-like skin texture. Enlarged or prominently visible pores. Papules and pustules in a follicular distribution. Skin hypersensitivity to products that were previously well tolerated. Overlap with papulopustular rosacea is common and clinically relevant.

Eyes and Eyelid Margins

Itching, burning, or foreign body sensation along the lid margin. Cylindrical collarettes at the base of the eyelashes (waxy, sleeve-like deposits considered highly specific for Demodex blepharitis). Recurrent hordeola or chalazia. Eyelash loss, misdirection, or thinning. Chronic dry eye or epiphora. Posterior eyelid involvement with meibomian gland dysfunction.

Nose, Nasal Folds and Chin

Follicular plugging visible as dilated pores or comedo-like lesions on the nasal alae. Sebaceous hyperplasia. Diffuse erythema across the nasal bridge and alar creases. Recurring inflammatory nodules in the chin folds. Rhinophyma in advanced, untreated cases.

Scalp and Hair

Pruritus at the scalp, often reported as worse at night. Folliculitis-pattern pustules or papules at hair follicle openings. Progressive diffuse hair thinning without androgenetic pattern or identified alternative cause. Scalp inflammation refractory to standard antifungal or antimicrobial therapy.

Perioral Region

Small erythematous or flesh-coloured papules and pustules around the mouth and nasolabial folds. Clinical appearance overlapping perioral dermatitis. History of prior topical steroid use is common. Response to conventional antibiotic therapy is often incomplete.

Neck, Chest and Other Sites

In patients with pronounced seborrhoea or systemic immune compromise, Demodex activity may extend to the neck, presternal chest, and ears. Follicular prominence, persistent erythema, and pruritus in these areas without an identified alternative diagnosis warrant consideration.

Nocturnal Symptom Exacerbation

A number of patients report that pruritus, burning, and skin crawling sensations intensify after retiring to bed. This pattern correlates with the nocturnal reproductive behaviour of Demodex mites, which emerge from follicular openings onto the skin surface to mate. The resulting immune stimulation can produce a measurable increase in local inflammatory mediators during the hours of sleep.

Symptom Checklist

Please mark the symptoms you are experiencing and indicate approximate frequency or intensity. Present this completed checklist to your dermatologist or treating clinician at your next appointment. Multiple moderate or severe items, particularly those involving eyelid margin signs or nocturnal symptoms, increase the likelihood that Demodex overgrowth warrants investigation.

Symptom	Occasional / Mild	Frequent / Moderate	Constant / Severe
Facial redness or persistent flushing	[ ]	[ ]	[ ]
Rough, uneven, or sandpaper skin texture	[ ]	[ ]	[ ]
Burning or stinging on the facial skin	[ ]	[ ]	[ ]
Skin pruritus, worsening at night	[ ]	[ ]	[ ]
Recurring facial pustules or papules	[ ]	[ ]	[ ]
Enlarged or conspicuous pores	[ ]	[ ]	[ ]
Eyelid itching, burning, or grittiness	[ ]	[ ]	[ ]
Waxy collarettes at base of eyelashes	[ ]	[ ]	[ ]
Recurrent styes or chalazion	[ ]	[ ]	[ ]
Chronic dry eye, tearing, or light sensitivity	[ ]	[ ]	[ ]
Eyelash loss or eyelash thinning	[ ]	[ ]	[ ]
Scalp pruritus or folliculitis-pattern lesions	[ ]	[ ]	[ ]
Diffuse scalp hair thinning without clear cause	[ ]	[ ]	[ ]
Papules or pustules around the mouth or nasal folds	[ ]	[ ]	[ ]
Skin worsening after topical corticosteroid use	[ ]	[ ]	[ ]
Sensation of movement or crawling on the skin surface	[ ]	[ ]	[ ]
Poor response to prior antibiotic or antifungal therapy	[ ]	[ ]	[ ]

Total items marked Frequent or Constant: ______ Total items marked Occasional: ______

Notes for your clinician (onset, triggers, prior treatments):

____

Severity Reference and Clinical Thresholds

The following framework is intended as a general orientation. Severity grading in clinical practice relies on objective findings including mite density on skin surface biopsy, dermoscopic features, and the degree of associated inflammation. Do not use this table to self-diagnose.

Severity	Typical Features	Suggested Action
Mild	Intermittent erythema or pruritus. Minimal skin texture change. No eyelid margin involvement. Symptoms managed with barrier-focused skincare.	Optimise facial hygiene. Use non-occlusive, fragrance-free products. Monitor for progression.
Moderate	Persistent redness, recurring pustules, or eyelid grittiness. Texture changes present. Symptoms interfere with daily activities or sleep.	Seek evaluation from a dermatologist or ophthalmologist with experience in demodicosis. Consider targeted topical therapy.
Severe	Visible lash collarettes. Pronounced folliculitis or papulopustular eruption. Significant eyelash loss. Vision-related symptoms. Active hair thinning.	Prompt medical assessment. Prescription-strength therapy may be required. Rule out underlying immune compromise.

Conditions Frequently Associated with Demodex Overgrowth

The following diagnoses have demonstrated elevated Demodex mite densities compared with healthy controls in peer-reviewed studies. Association does not imply causation in every individual case, but Demodex should be considered as a contributing or sustaining factor where standard treatment has produced an incomplete response.

Rosacea (Papulopustular Subtype)

Mite densities reported at three to eighteen times those of matched controls. Papulopustular and erythematotelangiectatic subtypes show the strongest correlation. Several clinical trials demonstrate symptom reduction with anti-Demodex therapy.

Demodex Blepharitis

Recognised as the primary cause of anterior blepharitis in adults. Cylindrical collarettes encasing the lash base are considered pathognomonic. Associated with meibomian gland dysfunction and secondary dry eye disease.

Perioral Dermatitis

Small papulopustular eruption in the perioral and paranasal distribution. Frequently precipitated or exacerbated by topical corticosteroids. Incomplete antibiotic response may indicate a Demodex component.

Folliculitis (Scalp and Facial)

Demodex-associated folliculitis may clinically resemble bacterial or fungal variants. Diagnosis rests on demonstrating elevated mite counts. Standard antimicrobial therapy does not address the parasitic component.

Seborrhoeic Dermatitis

Elevated Demodex density documented in seborrhoeic dermatitis; inflammatory load may be compounded by concurrent Malassezia colonisation. The relative contribution of each organism varies between individuals.

Androgenetic Alopecia (Emerging Evidence)

Preliminary data suggest that chronic perifollicular inflammation driven by Demodex may accelerate follicular miniaturisation in genetically predisposed individuals. Further prospective study is ongoing.

Red Flags: When to Seek Prompt Evaluation

The following signs warrant timely assessment by a dermatologist, ophthalmologist, or your primary care physician. Do not delay presentation if any of these apply.

- Rapid or substantial worsening of facial erythema, oedema, or pustulation
- Visible cylindrical collarettes at the base of multiple eyelashes
- Acute or progressive eyelash loss across more than one eyelid segment
- Eye pain, photophobia, or any change in visual acuity
- Skin infection presenting with warmth, swelling, or purulent discharge
- Symptoms that have not responded to two or more appropriately selected therapies
- Onset or marked worsening of skin symptoms during a course of topical corticosteroids
- Facial demodicosis in a child or adolescent, which is uncommon without underlying immune compromise and requires investigation

How Demodex Is Diagnosed Clinically

There is no reliable home test for Demodex overgrowth. Diagnosis is established through one or more of the clinical methods below. The choice of method depends on the affected site, the equipment available to the clinician, and the degree of suspicion based on symptom pattern.

Diagnostic Method	Technique and Interpretation
Standardised skin surface biopsy (SSSB)	Cyanoacrylate glue applied to the skin, allowed to set, then stripped. The tape is examined microscopically and mites counted per square centimetre. A density above five mites per square centimetre is considered elevated.
Reflectance confocal laser scanning microscopy (RCLSM)	Non-invasive, in vivo, real-time visualisation of mites within follicles at cellular resolution. High sensitivity. Requires specialist equipment currently available in tertiary dermatology centres.
Dermoscopy and videodermoscopy	Handheld or video dermoscope at high magnification reveals mite tails protruding from follicular openings, follicular plugging, and rosette pattern. Useful as a quick in-office screening tool.
Eyelash epilation with light microscopy	Several eyelashes are epilated and examined under direct light microscopy. More than one to two mites per lash is considered diagnostically significant for Demodex blepharitis. This remains the standard method in ophthalmology.
Clinical pattern recognition	An experienced clinician may make a working diagnosis on the basis of symptom pattern, the presence of collarettes, and clinical response to a therapeutic trial of anti-parasitic treatment, particularly where specialist testing is not immediately accessible.

A Practical Pathway: Your Next Steps

If the symptoms described in this guide are consistent with your experience, the following steps provide a structured approach to obtaining appropriate evaluation and care.

1	**Complete the symptom checklist on page 3** Mark the items that apply and note the frequency. Record how long symptoms have been present and what treatments, if any, you have already tried.
2	**Schedule an appointment with a relevant specialist** For predominantly facial or scalp symptoms, consult a dermatologist. For eyelid or ocular symptoms, consult an ophthalmologist. Use the Demodex.net Practitioner Directory to find a clinician experienced with Demodex-related conditions.
3	**Bring this guide to your appointment** Hand the completed checklist to your clinician. Ask directly whether Demodex has been considered, and whether dermoscopy or a skin surface biopsy is appropriate given your symptom profile.
4	**Request confirmation of diagnosis before committing to a treatment course** Treatment for Demodex overgrowth differs meaningfully from standard rosacea, blepharitis, or folliculitis management. A working diagnosis is reasonable, but confirmed testing supports more precise therapy selection.
5	**Review evidence-based management resources** Detailed treatment protocols, clinical evidence reviews, and practitioner-curated product information are available at demodex.net. The Patient Resource Centre is organised by symptom site and severity.

Key Resources at Demodex.net

Resource	URL	Description
Patient Resource Centre	**demodex.net/patient-resource**	Condition guides, symptom overviews, and education for patients.
Research Hub	**demodex.net/demodex-research/**	Peer-reviewed summaries, clinical studies, and evidence reviews.
Practitioner Directory	**demodex.net/practitioner-directory**	Locate a Demodex-experienced clinician in your area.
Symptoms and Signs	**demodex.net/demodex-blog/?cat=symptoms-signs**	In-depth articles on individual symptom types.
Treatment Protocols	**demodex.net/demodex-blog/?cat=treatment-protocols**	Clinical management options and therapeutic protocols.
Community Forum	**demodex.net/forum**	Moderated peer support for patients and caregivers.

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