

Demodex

Demodex folliculorum is a microscopic creature in the form of an elongated and jointed worm, with clearly defined cephalic, thoracic, and abdominal portions; with eight legs, four on each side of the thorax, each leg terminates in three small hooklets. The mouth of these mites is like a very sharp needle that can directly sting into the cells to absorb nutrition. They like a wet and warm environment and become the most active in the dark. During the day, Demodex mites remain feeding within the follicle. At night, they emerge onto the surface to mate, and eggs are laid into follicles so that the newly hatched larvae may feed on sebaceous oils. After mating on the surface of the skin, they go back into the hair follicle or sebaceous glands and lay eggs, taking bacteria with them and excreting wastes and secretions. After death, their corpses become liquid and decompose inside the skin.



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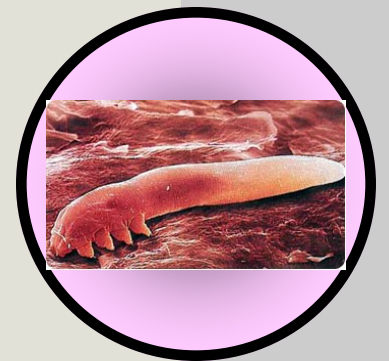
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DEMODEX

Demodex is a mite that lives on the face and in the hair follicles associated with various skin complications of the face, such as blepharitis, acne rosacea, and other skin conditions. The disease can badly damage the skin usually when the immune system is weakened and the parasitic population has colonized.

Varying in size from .1mm to .4 mm long, they live in the pores of the skin and hair follicles, typically on the scalp, forehead, cheeks, nose, eyebrows, external ear channels and most often in the roots of the eyelashes. As the demodex complete the entirety of their life cycle in the sebum glands and hair follicles, they cause mechanical and



chemical damage to the skin. Additionally the allergic reaction that leads to inflammation result in, acne eruption, pustules and reddish color on the face.

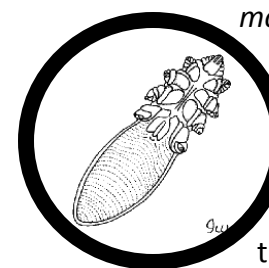
There are two existing types of mites: the longer kind, Demodex folliculorum, which live in the hair follicles and the short ones, Demodex brevis, which live in the sebaceous glands. The mites are invisible to the naked eye, usually measuring between 100 – 300 microns in



length. It is quite easy to observe Demodex mites, by carefully removing an eyelash or eyebrow hair and placing it under a microscope. The mites are transferred between hosts through contact of hair and sebaceous glands on the nose. In the vast majority of cases, the mites go unobserved, without any adverse symptoms, but in certain cases related to a suppressed immune system the mite populations can dramatically increase characterized by itching, inflammation and debris on the lashes. The mites can live on all body parts wherever there are hair roots and sebaceous glands. These areas have the most favorable living and breeding conditions and provide an optimum temperature for them to thrive. The Demodex folliculorum mite live in the eye lash roots and cause blepharitis, itching and infections. The hair follicles from the scalp are also often infected with itching and hair loss as a result. Demodicids have worm-like appearance, with tiny claws, and scales over the whole of its body so that it may better anchor itself in the hair follicle. The adult parasites have four pairs of short legs. They can slowly move on the skin especially during the night. The infestation is known as 'demodicosis' and occurs with increasing age. The infestation may be frequently free of symptoms.



Those patients with symptoms need to remember a few simple rules. Wash hair, face, nostrils, the external ear and the neck with soap daily. Wash bedding and pillow cases in hot water and dry in a heated dryer immediately before beginning a lid scrub regimen, and once a week thereafter. Keep pets away from sleeping surfaces. If a spouse has complaints of similar eye irritation, **apply the same eye cleansing regiment..** Cliradex Cleansing Eyelash Scrub stimulate mites out from deep hair follicles and skin causing direct killing. Ocusoft eye scrubs mixed with 50% tea tree oil will also provide a therapeutic treatment. If excessive itching, redness, swelling or persistent irritation occurs, stop use immediately and contact Davis EyeCare. The *de-*



modex count usually drops to zero in 4 weeks without recurrence in the majority of cases. Patients receiving therapy show dramatic improvements in symptoms, ocular surface inflammation, tear film stability, corneal epithelial, and visual acuity. Remember these mites infest all hair follicles and pores. Treatment includes shampoo, body gel and face mask daily.