

Delusory parasitosis is a real condition first described in the medical literature more than a century ago. Originally called “delusion of parasitosis”, it was described as an emotional disorder in which the patient has an unwarranted belief that live organisms, such as mites or insects, are present on or in his body. It can be caused by many other medical ailments - heavy metal poisoning, exposure to toxins, diseases such as AIDS, anemia, carcinoma, diabetes, hyperthyroidism, lupus, lymphoma, and multiple sclerosis. Nutritional deficiencies, allergies, drug reactions, alcohol or drug withdrawal, menopause, niacin overdose, rheumatoid arthritis, stress and even vitamin overdoses are known to trigger the symptoms. People with delusory parasitosis are otherwise reasonable, are not usually phobic about insects, and come from a variety of socioeconomic and occupational backgrounds. They will report feeling something biting, stinging, or crawling inside their skin and will dig into the skin trying to find and dislodge whatever’s causing it. Telling them that insects and parasites do not behave in this manner will have no effect on their beliefs. They will use harsh cleaning compounds, even pesticides and gasoline, on their skin to get rid of the “bugs” or “worms” crawling under their skin and infesting them. They may also bathe excessively. In nearly every case, there is a real reason for the sensations. However, rarely is the reason the one given, making this condition difficult to diagnose and even more difficult to deal with.

Common symptoms reported by sufferers of delusory parasitosis include:

- The feeling of bugs, worms, fibers, or mites biting, crawling, or burrowing into, under, or out of the skin.
- Being able to feel and see these “bugs” or “worms” even if no one else can. If someone else can see them, it is rarely a physician.
- Thinking their home or furniture is infested.
- The conviction that no one seems to believe the “bugs” or “fibers” exist except themselves, or maybe a friend, who is “also infested”.
- Reporting to have seen many doctors, who either refuse to listen, refuse to see them, or refer them to someone else.
- Trying lots of different remedies, none of which worked at all or for long.
- Offering to show or send you the “bugs” or “fibers”.
- Being convinced that the problem is spreading to family, family pets, and friends.
- Seeing whatever is causing their problem reported on the internet.

Diagnosing Delusory Parasitosis

The differential diagnosis of itchy bites in humans is complicated by the fact that some of the causes are relatively rare. The major alternatives to be considered are scabies, fleas, body lice, mosquitoes, sand flies, horse flies, spiders, centipedes, bed bugs, ticks, midges, bird mites, and harvest mites. Diagnosis requires information on the circumstances in which the bites occurred, and the nature and distribution of lesions. In difficult cases, an entomologist should be consulted.

Other factors may be responsible for bites of “unknown origin.” There are literally hundreds of non-insect agents capable of causing itching and skin irritation. Household products most often implicated are phosphate detergents, soaps, cosmetics, ammonia-based cleaning agents, hair products, medications, printing inks, and certain types of clothing.

Environmental factors, both physical and chemical, can cause symptoms similar to bug bites. Tiny fragments of paper, fabric or insulation can pierce the skin, forming a “bite.” They can also cause crawling sensations, which usually results in scratching and possibly a rash. Usually fragments affect body parts that are not covered by clothing such as hands, arms, neck and head. Static electricity can increase the attraction of tiny fragments to exposed skin, exacerbating the problem. Low humidity and electronic equipment can contribute to static electricity. Dry air alone can cause irritation, producing a condition known as “winter itch” that is often mistaken for insect or mite activity.

Indoor air pollution can cause dizziness, headaches, and eye, nose and throat irritation, conditions often blamed on an “insect bite.” Some sources of air pollution are ammonia-based cleaning agents, formaldehyde emitted from wall and floor coverings, tobacco smoke, and solvents and resins contained in paints, glues and adhesives. Reactions to air-borne chemicals most often occur in buildings with inadequate ventilation. One must also consider stress, drug and alcohol abuse, and dry skin.

Thorough testing, including a complete physical checkup, should lead to an accurate diagnosis and treatment for most sensations of infestation caused by metabolic disorders or other medical problems listed above. A referral to a dermatologist, allergy specialist, or infectious disease specialist may be considered to rule out a physical cause of the problem.

If necessary, medical specimens can be submitted by the physician to entomologists, parasitologists, or other biologists for verification or identification. These experts, who may be found at a university extension service or in public health departments, not only can identify or rule out various kinds of parasites that may be causing the condition, but they can also provide additional biological information that may greatly assist in arriving at a satisfactory diagnosis and treatment.

The literature on dealing with delusory parasitosis recommends reminding people that if professionals can't pinpoint an offending organism, it is very unlikely that all of them are wrong, and other avenues should be pursued. Stating it this way rarely works. Neither will suggesting that they might want to visit the mental health clinic. Sufferers are often reluctant to consult a psychiatrist, and if the suggestion to do so is not made carefully, the patient may seek help from another physician.

Treatment of Delusory Parasitosis

- Run appropriate diagnostic tests to rule out other medical conditions.
- Rule out true infestation.
- Take a good history to help rule out environmental causes.
- Rule out other organic causes such as allergies and contact dermatitis.
- Determine whether there is a history of drug abuse.
- Consider psychotherapy. Management of patients with delusory parasitosis is best handled through the cooperation of dermatologists, psychiatrists, and entomologists or parasitologists. Psychiatrists are needed to confirm the diagnosis of delusory parasitosis and to diagnosis any underlying psychiatric disorders. In addition, psychiatrists are able to conduct psychotherapy and provide a long-term commitment during the treatment phase.
- The drug most often mentioned in the literature as being effective for treating delusory parasitosis is the antipsychotic agent pimozide, which can provide significant relief of both itch and delusions.

People with delusory parasitosis often go from doctor to doctor seeking relief and confirmation of their suffering. Because patients are wary that a psychiatrist may challenge their delusions, they are likely to resist recommendations to seek psychiatric help. A physician might persuade such patients to see a psychiatrist by suggesting that a mental health professional could help them manage the emotional hardships created by their affliction.

References:

- <https://skinparasites.ucdavis.edu/delusional-parisitosis>
- <http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7443.html>
- <https://entomology.ucr.edu/eblingchapter14>
- Hillert, A, et al. 2004. Delusional Parasitosis. *Dermatol Psychosom* 5:33–35
- Hinkle, Nancy C. 2000. Delusory Parasitosis. *American Entomologist* 46 (1): 17-25. <https://ent.uga.edu/content/dam/caes-subsite/entomology/documents/publications/hinkle-publications/delusory.pdf>
- Potter, Michael F. 1997. *Invisible Itches: Insect and Non-Insect Causes*. University of Kentucky Cooperative Extension Service. ENT-58.

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