

Potential Hazard of Copper Infused Mattresses and Permethrin Exposure

Union of Saints

Why infuse mattresses and medicines with copper?

This message is for Americans who are currently being exposed to **aerial pesticide spraying, truck foggers, and indoor pesticides**, often with little warning.

Mattresses and foam materials are among the **most absorbent surfaces in a home when pesticides are present**. These materials can retain chemical residues for extended periods of time. When pesticides settle into foam bedding, individuals may experience symptoms such as **tingling, tremors, headaches, or neurological irritation** due to repeated exposure during sleep.

People typically spend **six to eight hours in direct contact with their mattress each night**, which can prolong exposure. In humid environments, sweating and body heat may increase chemical transfer to the skin.

Because copper infused mattresses are designed to **increase moisture transfer and antimicrobial activity**, some concern exists that the combination of **copper infused fabrics and pesticide residues may increase dermal exposure**.

For residents in areas where mosquito spraying occurs frequently, such as parts of Florida where treatments may occur monthly, questions remain about whether these mattresses are ideal for **long term use in heavily sprayed environments**.

1. Copper Infused Mattress

Copper in mattresses is typically present as **microparticles embedded within foam or fabric**.

Possible effects may include:

- Skin irritation in individuals with metal allergies
- Mild copper ion release in sweaty or humid environments
- Allergic contact dermatitis

The major concern may be the **potential elevation of symptoms when other environmental toxins are present**.

Synergistic Toxicity

Exposure to multiple substances, including **copper based compounds such as copper sulfate or copper hydroxide and pesticides such as permethrin**, may produce complex

biological effects. While these interactions are often studied in insects, some research suggests they may increase toxic stress in biological systems.

- **Skin Toxicity**

Studies on copper compounds have shown that they can trigger inflammatory responses in skin cells, including increased expression of proteins such as **IL 1 α** and **IL 8**. These inflammatory responses may affect the skin barrier and could theoretically influence the penetration of topical chemicals such as permethrin.

- **Metabolic Interaction**

Both permethrin and copper can interact with **cytochrome P450 monooxygenases**, enzymes that play an important role in the detoxification of chemicals in the body. In theory, elevated copper exposure could influence how the body metabolizes pesticides such as permethrin.

For Reference:



Fancylion Memory Foam Mattress Topper

Fancylion-USA

At this time US recommends residents in high spray areas stay concerned and keep the Copper, Pesticides and other Heavy Metals out.