



Health Effects of Hornet Stings and Their Prevention

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Hornets are large, aggressive wasps that are common in forests, agricultural fields, gardens, and even near humans' settlements. Hornets are beneficial insects that help manage insect pests and are a key part of the ecosystem but can be a threat when they feel their nests are under attack. They can cause many health effects, including mild swelling and redness, severe allergic reactions, and life-threatening anaphylaxis in sensitive individuals, due to their stings. Several stings can also cause serious cardiac, renal and nervous system issues. To prevent injuries and promote safety, it is important to be aware of the health risks associated with hornets and take proactive steps to avoid their stings. Educating people to look for hornet nests, avoid certain activities and wear protective clothing and seek immediate medical care after a hornet sting can reduce health risks. This article focuses on the negative effects of hornet stings and the steps that can be taken to avoid stings and help safeguard communities.

When a Hornet Sting hits the Body

Hornets have a small amount of venom in their stinger and will use it to sting when they feel threatened or are trying to protect their nest. This venom contains a complex mixture of proteins, peptides, enzymes and other biologically active substances. They all serve to defend the Hornet, by bringing rapid discomfort and repelling predators/intruders. Each hornet species and each sting will inject a different amount of venom. They release naturally occurring chemicals into the body after the sting, causing pain, redness, swelling and warmth around the sting location. The venom triggers the immune system of the body to send more blood to the area and draw immune cells, causing inflammation. These symptoms are not serious in most people and go away in a few days. But others may have a reaction to more than a few bee stings that can be serious and require immediate medical care.

Getting to Know Hornets

The hornets are large social insects, which are part of the wasp's family and are present in many countries of the world. They are valuable in nature for the balanced control of insects. Hornets tend to nest in groups consisting of one queen, worker hornets and males, all of which build and defend the nest. They frequently form paper-like nests in trees, shrubs, under roofs and in wall spaces and other protected sites. Hornets are known for their stings which are painful, but they will not sting humans unless they are convinced of a threat or their nest is disturbed. Their stings are used to fend off attackers to the colony. Hornets are beneficial insects that can be identified by recognizing their nest building, their behaviour, and their nests so that people don't unnecessarily encounter them. When people become more aware of hornets and their services, they can interact with them safely and reduce the likelihood of them stinging them.

Health Effects of Hornet Stings

The effects of hornet stings vary among individuals, depending on their sensitivity, the volume of venom injected and the number of stings. Common reactions are pain, redness,

itching, swelling and a feeling of burning where the sting occurred. Typically, these reactions will resolve on their own within a short time, as long as you provide proper care. In some people, the reactions to the hornets may be larger, with swelling and discomfort extending beyond the sting site and persisting for several days. Allergic individuals might get serious reactions including shortness of breath, swelling of the face, throat, dizziness, rapid heart rate, or loss of consciousness. This is called anaphylaxis and is a medical emergency. If you are stung by several of the insects, it could be more serious due to the increased amount of venom in the body. They can cause complications to organs like kidneys, heart and nervous system in severe cases. It is essential to recognize early symptoms and receive prompt medical attention to help minimize health risks from hornet stings.

Who is more at risk?

Some people are more likely to get stung by hornets and to suffer from their stings. Agricultural workers and farmers face an increased risk since they can be found working in fields, orchards and plantations where hornets may nest. Hiding places are sometimes disturbed during activities like harvesting, pruning and vegetation clearing. Gardeners, forestry workers and outdoor workers are also at risk because they often work in areas of trees, shrubs and wooded areas where hornets are likely to live.

First Aid for Hornet Stings

First aid treatment can be quick and appropriate to minimize post-hornet sting pain and complications. Seek out safe shelter right away, to prevent further stings, particularly if the sting was near a hornet nest. Gently clean with soap and clean water and then apply a cold pack or ice wrapped in a cloth to the affected area for 10-15 minutes to help decrease pain and swelling. Elevate the affected limb, if possible, to help reduce swelling. Do not scratch or rub the area of the sting, as this could make the area more irritated and cause infection. Avoid home treatment including mud, toothpaste or other unproven remedies as they are not effective and may delay treatment. If the person experiences any of the following, seek immediate medical attention: difficulty breathing, swelling of the face, lips, tongue or throat, severe dizziness or fainting, or if more than one hornet sting has been received. Treatment of insect stings is particularly important for those who have had previous reactions to insect stings that were both intense and serious enough to threaten life, as prompt treatment can avert potentially life-threatening complications.

Preventing Hornet Stings

The best way to avoid hornet stings is to be aware and cautious when outdoors. Don't disturb or approach hornet nests as the hornets are most likely to sting if they think that their colony is under threat. If a nest is discovered close to a home, school or work, maintain a distance and the nest should be removed by trained experts, not by the homeowner. It is recommended that individuals who work in a farm/yard/garden, forest, or other outdoor environment should wear long sleeved clothes, gloves, and closed shoes to minimize the likelihood of being stung. Also, it's a good idea to not wear strong perfumes or brightly coloured clothes that may attract insects. Covering food, sugar sweet and garbage containers will further reduce the risk of attracting hornets. Don't swat, try to get away slowly, and stay away from a hornet if it is near. Public awareness of the risks of hornet stings, regular check of nesting sites and adherence to simple precautions will significantly reduce the risk of hornet stings and protect individuals and communities.

Community Awareness and Safety

By keeping the community informed about the dangers of hornet stings and how to avoid them, the risk of serious medical emergencies can be minimized. Education about hornets through school education, community education and awareness programmes can help people identify hornets' nests and know how to behave around them, and how to handle stings in basic ways. If a hornet nest is found, it is important to maintain a distance and to not approach the area. The nest should never be removed or disturbed by people unless they have

received special training and protective equipment. Rather, it needs to be contacted with the proper local agencies or a qualified pest management business for proper disposal. Teach children in schools to avoid disturbing insect nests by not touching them or throwing things at them, and to inform teachers if they notice an insect nest. Workers should wear protective clothing and check where they are working before picking or clearing vegetation on farms.

Conclusion

Hornet stings are a typical outdoor health threat that can result in anything from stinging and swelling to serious allergic responses and even severe medical issues. While hornets are valuable ecosystem helpers that help control insect numbers, it is important to understand their habits and take proper measures to prevent unnecessary interactions. Minimal preventative measures, prompt first aid and medical or other treatment if severe symptoms develop can significantly decrease the health risk from hornet stings. In raising awareness and promoting safe practices, people and communities can better protect themselves and create a safer and healthier environment.