

Question: My dog's face is really puffy and she's scratching at it. She also vomited. What is going on? Do I need to go to the vet?

What you are describing sounds like a Type 1 hypersensitivity reaction, which is the most common and easily identified allergic reaction. There are 4 main types of hypersensitivity reactions that we see in dogs.

Type I is an immediate and anaphylactic response. This is what we usually see with food allergies, seasonal allergies (atopy) and insect bites. We can also see this with an adverse reaction to vaccines and medications. After encountering a specific trigger, a sudden onset of inflammation throughout the body occurs. There is increased blood flow and histamine is released as certain cells are broken down. The most common signs are swelling of the face, muzzle and neck and large welts around the body, called urticaria. Pets may become very itchy, scratching at their muzzle, sides or biting paws. If this reaction is severe, dogs may go into shock. It should be quickly recognized and then treated by your veterinarian. A combination of anti-histamines and steroids may be used to help decrease the inflammation and stop the pathways that are causing the reaction. Medical treatment may be continued for a few days after the reaction. It is important to run through the past 24 hours to try to identify what caused this reaction and make efforts to avoid the trigger in the future.

A Type 2 reaction is called Cytotoxic, meaning it causes the body to break down its own cells. Examples include auto immune disease causing a sudden anemia, low platelets, skin disease, or drug reactions. The signs will depend on the body tissue cells that are involved but can include sudden blood loss and skin lesions.

A Type 3 reaction is called Immune-complex mediated. Examples include systemic lupus, rheumatoid arthritis and feline infectious peritonitis. In these cases a complex of antibody with an antigen bind to tissue in the body causing a reaction that results in tissue damage. Signs may include loss of proteins through the kidneys and arthritis.

A Type 4 reaction is called delayed cell-mediated. Examples include contact reactions and organ rejection. It is a delayed reaction because we do not see a reaction until greater than 12 hours after beginning of exposure.

If you suspect your dog is having a reaction, you should call your veterinarian as soon as possible and get treatment for her, which hopefully you did.

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