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Reaction Videos

Anaphylactic shock is a severe systemic allergic reaction. Everything begins with exposure. The top three allergens in the world are 1. Pets 2. Shellfish and 3. Peanuts. Just a little exposure to these allergens can cause a huge allergic reaction. When an allergen is released in the body, antibodies bind to the antigen and interact with basophil cells. Enzymes travel into cells which then causes degranulation. The basophil cells recognize this harmless antigen as something very harmful to your body. The basophil kicks into fight mode and releases histamine in order to prevent against any attack of the allergen. Once histamines are released, they travel to certain organs in the body. This is what shows up as the allergic reaction. An allergy can be mild such as a rash on the skin, it could be moderate like a stuffy, runny nose, or it can be severe such as constriction of the airway with wheezing. Once that happens, you can't breathe and it takes just minutes to die. Anaphylaxis requires emergency care. Anaphylactic shock is characterized as decreased cardiac output, low 02 saturation, and a drop to low blood pressure. Anaphylactic responses may show up 72 hours after the initial reaction to the allergen. One out of five people are allergic to pollen. 30,000 people are rushed to the ER a year for allergic reactions. Why haven't we figured out a way to end these allergies then? Well, allergic responses differ between people. Allergies can be passed down through genetics. If one parent has an allergy, the child has a one in three chance is receiving that allergy too. If both parents have the same allergy, the child has a four out of five chance of receiving that allergy too. It's affects are so widespread that there can't just be one cure all. So as far as it's looking there isn't any cure for allergies in the near future. The most important thing we're concerned about as a nurse is an ineffective airway. Without an airway there's a decrease in oxygen tissue perfusion. A very effective way to treat that is epinephrine. Epinephrine may be required to administer in someone who is currently having an anaphylactic response. One out of three people end up requiring two doses of epinephrine to reverse the effects of the allergic response. It's important to obtain a full medical history of the patient, along with what they were doing immediately prior to the allergic response. Epinephrine should be doing it's job at this point, but it's still important to remove the antigen if at all possible. If not, then as a nurse we need to reverse the effect of the antigen by starting a large bore IV to push fluids through, and putting an oxygen mask on the patient while closing monitoring their vital signs. The patient should be good in no time!