Background: The purpose of this study is to report a case of food-dependent exercise-induced anaphylaxis in a nineteen year-old female Division I collegiate soccer player. The athlete has a history of exercise-induced asthma, causing chest tightness within fifteen minutes of beginning physical activity. She also has a history of allergies to certain foods and medications which include peanuts, soy, rye, Lorabid (Loracarbef), and Keflex (Cephalexin). On July 6, 2008, the athlete ate carrots, broccoli, and celery with ranch dressing for lunch. Forty-five minutes after consumption of the food the athlete was completing ten yard sprints. During this activity she presented with hives and severe itching all over her body as well as angioedema of the lower extremities. The hives progressed from small lesions to giant welts within a few minutes. The athlete administered epinephrine, took three teaspoons of Benadryl, and raised her legs in an attempt to control the symptoms. Her breathing became extremely labored and she experienced a syncopal episode. Emergency medical services were activated and paramedics treated the athlete with adrenaline, antihistamine, and oxygen, which eventually relieved the symptoms. Differential Diagnosis: exercise-induced asthma, cholinergic urticaria, classic exercise-induced anaphylaxis, variant exercise-induced anaphylaxis, and food-dependent exercise-induced anaphylaxis. Treatment: Laboratory tests evaluated the athlete’s pulmonary volume, which was 4.08 liters compared to the normal value of 5.0 liters. Broccoli IgE antibodies were found to be slightly elevated in the allergy screening. Asthma and north east URD profiles identified abnormal values for several different factors. The findings of the laboratory tests and the athlete’s medical history resulted in a diagnosis of food-dependent exercise-induced anaphylaxis. The athlete was instructed to eat no less than two hours before exercise and to avoid consuming celery and ibuprofen, which are common triggers of her condition. The athlete was also directed to avoid any other known allergens. She was told by her physician to carry Benadryl and an epinephrine injector with her at all times and to go to the emergency room immediately if epinephrine was needed. If administered immediately Benadryl, ice packs, and rest should relieve her symptoms and prevent progression into anaphylactic shock. Uniqueness: Exercise-induced anaphylaxis is a rare form of physical allergy with very few reported cases in the literature. Anaphylaxis is an acute-onset, potentially fatal systemic allergic reaction with episodes ranging in severity from those that are mild and resolve spontaneously to those that are fatal within minutes. This condition has been described at all levels of physical exertion and during various athletic activities. As a Division I athlete she is more susceptible to anaphylactic shock because she is required to exercise much more frequently and at a higher intensity than the general population. This condition is unique because it often goes undiagnosed or misdiagnosed as exercise-induced asthma or cholinergic urticaria. Due to the low incidence of reported cases, exercise-induced anaphylaxis is often not included in differential diagnoses further contributing to its uniqueness in the medical community. Conclusions: Exercise-induced anaphylaxis is a unique condition which presents in several forms including classic, variant, and food-dependent. As with most allergic reactions, avoidance of known physical triggers or allergens provides the most effective form of prevention. At this point in time, the athlete is able to continue playing soccer at the collegiate level. Although symptoms have begun to appear on several occasions, preventative measures have been implemented successfully to avoid a reoccurrence of anaphylactic shock. Word Count: 559