

An interview with Swanson Health Products President Lee Swanson

*Dr. Janice Vickerstaff Joneja, Ph.D., R.D., is an author, researcher, educator and clinical counselor who is widely recognized as a leading expert in food intolerance. Dr. Joneja holds a Ph.D. in medical microbiology and immunology, and has been a member of the academic faculty of the University of British Columbia and other universities.*

*Dr. Joneja is also a dietician (R.D.), registered in the College of Dieticians of British Columbia, and is a member of both Dieticians of Canada and the American Dietetic Association.*

*An experienced clinical counselor for over thirty years in the area of biochemical and immunological reactions involved with food allergy and intolerance, Dr. Joneja has also authored six books on the subject including*Dealing with Food Allergies*. For 12 years she was also the head of the Allergy Nutrition Program at Vancouver Hospital and Health Sciences Centre.*

*Dr. Joneja is a respected lecturer at universities,*[*colleges*](http://www.swansonvitamins.com/health-library/products/daosin-histamine-intolerance-supplement.html)*and hospitals around the globe and regularly appears on television and radio call-in shows as an expert in her field.*

As always, I wish you the very best of health,


**SWANSON: Dr. Joneja, you're probably the world's foremost authority on histamine as it relates to our diet and you've been instrumental in defining "histamine intolerance" as something distinct and different from a classical allergy—in other words, something that is not a disease or disorder but something that all of us may experience at one time or another. Can you explain how histamine relates to our diet and what "histamine intolerance" means?**

**Dr. Joneja:** Another term for histamine intolerance is "histamine excess." It refers to a state in which the amount of histamine in the body exceeds the normal, or "tolerable," level. When the histamine level in the body is too high, a person may experience physical phenomena that closely resembles an [allergy](http://www.swansonvitamins.com/health-library/products/daosin-histamine-intolerance-supplement.html). Because histamine is the major mediator (or reactive chemical) that is released in an allergic response, the symptoms of histamine excess and food allergy will be very much the same. Some people break out and itch; some sneeze and get watery eyes; some experience a headache. However, when the person consults his or her doctor and allergy tests are carried out, in most cases of histamine intolerance the tests are negative, and both patient and doctor are baffled. Reactions that appear after eating, sometimes after a delay of up to several hours, but test negative for allergy, may very well be due to histamine intolerance.

Histamine comes from many sources, but the one we can control is the level of histamine in our diet. Several foods, especially fermented foods and beverages, contain high levels of histamine.

**SWANSON: What foods are highest in histamine?**

**Dr. Joneja:** The foods high in histamine are listed on my website www.allergynutrition.com. Look under FAQ and, as part of the answer, you will find a histamine intolerance factsheet. In summary, the foods highest in histamine include:

* Fermented foods, such as cheese of all types, other fermented milk products such as yogurt and buttermilk; processed fermented meats such as pepperoni, salami, bologna; fermented vegetables such as sauerkraut
* Fermented drinks, such as beer, ale and wine
* Some fruits that produce histamine during the ripening process such as tomatoes and cherries
* Citrus fruits, such as oranges, lemons, limes and grapefruit
* Foods that are high in natural benzoates, such as cinnamon, anise, nutmeg and spice mixtures that contain these, because benzoates release histamine when they react adversely in the body. Berries such as strawberries, raspberries, cranberries and blueberries also may contain high levels of benzoates and therefore may trigger a histamine intolerance reaction in sensitive people. Surprisingly, tea (black or green tea) contains a high level of benzoates and may release histamine in a sensitive person.
* Foods that release histamine in a process that we do not yet understand, such as egg white
* Some vegetables such as spinach, eggplant, olives and avocadoes
* Foods in which inefficient processing after harvest allows microorganisms to convert the histidine in the protein into histamine; foods such as fish and shell fish are particularly likely to contain histamine from this source. Protein foods, such as leftover meat that has not been refrigerated or frozen immediately, is also liable to microbial fermentation and the production of histamine.
* Foods containing sulfites
* Foods, supplements and medications containing food dyes (called azo dyes) especially tartrazine, which is a bright orange/yellow color, and red dyes. These are used widely in candies and confectioneries.

**SWANSON: You've identified DAO as the key to the body's ability to cope with dietary histamine. What is DAO?**

**Dr. Joneja:** Diamine oxidase (DAO) is an essential enzyme in the body that breaks down histamine. The body then takes the break-down products (called imidazole compounds) and excretes them through the kidneys into the urine. When the body's level of histamine exceeds its requirements, DAO breaks down the excess so that histamine is kept within the "normal" level. A normal level of histamine is required for its vital control of some brain and digestive tract functions, and immune defenses. If a person has a slightly lower level of DAO, or has eaten too many foods with high levels of histamine that exceed their enzyme's capacity to break down the excess quickly enough, signs of histamine excess result. Each person has his or her own "limit of tolerance," which is determined by his or her DAO's ability to keep histamine at a tolerable level.

**SWANSON: You recommend that people concerned about histamine intolerance limit the histamine-containing foods in their diets and take a supplemental DAO to help boost this important enzyme. How do I know if taking DAO may help me?**

**Dr. Joneja:** First, it's important to check with your doctor to rule out a true food allergy or other concerns. If your health professional has ruled out allergy and other causes, consider trying a histamine-restricted diet. A dietician or counselor can help with this. I advise my clients to avoid high-histamine foods and replace them with others of the same nutritional value. I also recommend that while reducing high-histamine foods, they try taking DAO as an additional measure of support.

Once a person feels comfortable, he or she might try one histamine-rich food, while continuing to take DAO. If they do not develop the familiar signs of histamine excess, they should be able to eat the occasional histamine-rich food while continuing to take a DAO supplement. This should allow them to be less rigid in their dietary choices and to eat some of the high-histamine foods they especially enjoy on occasions. It's important to recognize, however, that while DAO can help maintain a healthy histamine tolerance, a person can still exceed his or her limit.

**SWANSON: Is DAO something people should take daily, or can it be used based on the situation? For instance, can I simply take it before or after I go to that wine and cheese party on Friday night, but not take it every day?**

**Dr. Joneja:** It really depends on your body's ability to handle histamine. People who have very low levels of natural DAO will need to restrict their histamine-rich foods as well as taking a regular DAO supplement. If you experience only the occasional "histamine reaction" after indulging in too many histamine-containing foods you should be able to simply take the supplement when you plan to consume high-histamine foods and beverages such as wine and cheese at a party, or a large pepperoni pizza with double cheese and

**SWANSON: In your experience with clients, have you found dietary histamine to be widely problematic? It seems to me that almost everyone might benefit from supplemental DAO on occasion.**

**Dr. Joneja:** It is possible for anyone to exceed his or her DAO's capacity to break down their excess histamine. For example, people who have quite normal levels of DAO may break out in [hives](http://www.swansonvitamins.com/health-library/products/daosin-histamine-intolerance-supplement.html) after eating a large basket of strawberries. I have a client who breaks out in hives due to histamine excess when she eats ripe cherries from the tree in her garden; however, she can eat unripe cherries without difficulty because the unripe fruit has not yet produced a high level of histamine. Many people seem to develop a stuffy nose after consuming alcohol, especially if they consume a high-histamine food at the same time. Beer and pizza is a common combination that often results in headache, not so much from too much alcohol (although of course that will happen on occasion!) but from the excess histamine. If a person regularly experiences these signs after eating high-histamine foods it would be a good idea for them to try taking DAO prior to eating, and to find out if this helps. But again, I do want to caution that it is important to visit a health professional if your experience seems like it may be due to an allergy. We certainly do not want to encourage people to self-diagnose something that could truly be a medical condition. But in those instances where allergy is ruled out, histamine excess could be in play and in my experience, DAO has proven to be very helpful for many people.

**SWANSON: Dr. Joneja, thank you so much for talking with us and for all the good work you have done over the years. I encourage our readers to visit your website and check out your books on Amazon. I've seen the benefits DAO can have and I know it's going to be a breakthrough for many people.**