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Amanita Muscaria

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[Wild Mushrooms](#)

My wife, Sonia, with a basket of Amanita muscaria in Lithuania.

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Note: Amanita muscaria is widely regarded as toxic. I prepare this mushroom in a way that reduces toxicity, as far as I can tell, to zero. This page tells something about A. muscaria and includes my method for making it edible. As this mushroom is widely reported to be dangerous, I am not suggesting that you eat it, but am only reporting on my own experiences. In my opinion, A. muscaria is a prime edible mushroom. For field guides, I recommend my friend David Arora's encyclopedic *Mushrooms Demystified* (Ten Speed Press) and beautiful smaller pocket guide *All the Rain Promises*, and more (Ten Speed Press). To learn about mushroom clubs and classes in the area where you live contact the [North American Mycological Association](#).

Amanita muscaria is a member of the Amanitaceae family, a family of mushrooms that includes some of the most wonderful edibles, and some of the most deadly. Muscaria's red cap with white dots make it one of the most easily identified wild mushroom. Though most people don't know its name, it is probably the most widely recognized mushroom among the general

population, thanks to its popularity as the typical mushroom of cartoons and commercial art.

[Amanita caesarea](#) is one of Italy's most highly prized, and expensive, mushrooms. In Italy, specimens of *A. caesarea* in prime condition are thinly sliced and served raw with a sprinkling of an aromatic olive oil and salt. Other edible and delicious Amanitas include [A. vaginata](#), and *A. calyptroderma*. The French place [A. rubescens](#) amongst the best of all edible fungi. (Mushroom names seem to always be in flux. The western North American *A. rubescens* was recently renamed *A. novinupta*.) A less common, but an incredibly tasty edible amanita is [A. velosa](#) of my own California neighborhood.

Despite so many wonderful edible varieties, in America the reputation of all Amanitas is unfortunately severely clouded by the presence of a couple deadly family members.

While many mushrooms are called poisonous, what is usually meant is that the mushroom could cause some unpleasantness, such as vomiting or diarrhea, when eaten raw. [A. phalloides](#) and [A. ocreata](#) are poisonous in the skull and cross bones rat poison sense of poisonous -- they are deadly -- and furthermore no amount of cooking, and no cooking method, will alter that fact. A single phalloides cap can kill you, and if it doesn't, it can leave you with damaged kidneys and liver.

Setting aside the mushrooms that are poisonous in the rat poison sense, what one culture deems to be a poisonous mushroom, and what another deems edible, though perhaps only after appropriate culinary preparation, is arbitrary, as are so many cultural choices about food. Our own American cultural attitude towards mushrooms largely derives from English attitudes and remains surprisingly fungophobic. Out of fear for *A. phalloides* and *A. ocreata*, for example, the advice published in American fieldguides going back to the 19th century is often to stay away from all Amanitas regardless of edibility.

Amanita muscaria is tainted by the cultural fear of poisonous mushrooms, especially of poisonous Amanitas, and also by the American, at least official, rejection of most intoxicants. The beautiful *Amanita muscaria* has a mythic reputation as the ancient drug of shamans, and its toxicity when eaten raw -- or grilled -- includes changes in mental state, along with physiological reactions such as nausea. Too many raw muscarias can kill you, but a normal person would have to eat a fantastic quantity, so death from *A. muscaria* is not a significant risk to the many people who eat it for its mind-altering qualities. Read the books by Gordon Wasson on the the role of *A. muscaria* in shamanistic rituals in various parts of the world for information on the spiritual aspects of muscaria consumption.

Amanita muscaria is a large gilled red-capped mushroom usually marked on the cap with white dots -- the feature that plays so well in cartoons. The dots are not part of the cap. A characteristic of all Amanitas is that when young

the not-yet-opened mushroom is surrounded, fetus-like, by a white felty egg-like enclosure or sack. Most Amanitas, when mature, have some residue of this white felty sack on their cap. Usually, though, it is in the form of one or more large patches, but in the case of *A. muscaria*, the sack breaks up into many small patches -- the white pokadots of the mushroom cartoonist.

My own interest in *A. muscaria* is culinary. My interest was piqued many years ago when I read a field guide that said that while the mushroom is poisonous, in Japan it is pickled and eaten as food. Reading this I called my mycologist friend, David Arora, author of *Mushrooms Demystified*, and *All the Rain Promises*, and more. David lists *A. muscaria* as poisonous in the current editions of his books. The first reference book he turned to after I called him said that the mushroom is poisonous, but that the author had a friend who eats it regularly with no ill effects. Stating that *A. muscaria* is poisonous, but that it is commonly eaten as food by a friend or by people somewhere else, is a recurring feature of books on mushrooms. As early as 1900, George Atkins wrote in his book, *Studies of American Fungi*, that while the mushroom is "deadly as ordinarily found," it is eaten ". . . as food in parts of France & Russia, and it has been eaten repeatedly in certain localities in this country without harm."

Foreign authors write in the same vein. A recent Lithuanian field guide states that the mushroom is poisonous, but that it is eaten in the mountains of France and Austria. The most popular Italian field guide, Bruno Cetto's *I funghi dal vero*, volume 1 says that *muscaria* is poisonous, but that it is eaten cooked and pickled in Russia, France, and in the Lake Garda region of the Italian Alps.

So, what is going on? First, there is the old semantic problem that by custom all mushrooms are labeled poisonous, whether they might make you a little sick or whether they might send you to your grave. Also, no effort is made to clarify whether a mushroom's ill effects are countered by cooking -- which they often are. While field guides are accurate guides to classification, in the area of edibility, they can be more of a guide to local preference and prejudice than scientifically accurate.

Consider, outside the realm of fungus, the case of the famous puffer fish. This fish is clearly highly toxic. A small amount of puffer fish toxin kills you. On the other hand, prepared properly, if the organs, such as the liver, are removed without puncturing, it is perfectly safe to eat and is, in fact, eaten in great quantity, and at great cost, most famously in Japan. American food magazines frequently run glossy spreads on Japanese fugu restaurants. If the same attitude were applied to a mushroom such as *A. muscaria*, a food far less dangerous than puffer fish, mushroom field guides would not label the mushroom poisonous, and it would be served in restaurants -- as it is in Japan in the Nagano Prefecture.

Despite references to the mushroom as being "poisonous" I figured that there were enough references to pickling the mushroom that it would be safe to eat it if I began culinary preparations the way mushroom pickling is begun -- with boiling. In consultation with David Arora I begin eating *A. muscaria*

after having boiled it in lightly salted water for a few minutes. Even though I had confidence that the boiled mushroom would be perfectly safe to eat, I worked up, one day at a time, from a tiny piece of cap, to a quarter cap, to half a cap, to a whole cap, and the only effect, which increased as the quantity of cap eaten increased, was one of great pleasure, because the Santa Cruz, California, variant of *A. muscaria* is big, thick, and sweet tasting.

Since the initial testing period, David has fed hundreds of people *A. muscaria* with no ill effect. David has also now visited Nagano Prefecture, Japan, and seen the Japanese *A. muscaria* harvest, eaten at a restaurant that serves the mushroom, and tasted the famous Japanese *muscaria* pickles. One of his photographs from that trip is published below.

In addition to *A. muscaria's* reputation as a drug for shamans, or as a pickle for a Japanese meal, I'd like to add that to mushroom collectors *muscaria* is known as a beacon, an omen of good tidings. It is what mushroom collectors call an "indicator" mushroom. Where *muscaria* is growing *boletus edulis*, the porcini of Italy, is likely to grow too.



This photograph, taken in Nagano Prefecture by David Arora, was first published in the *Amanita* monograph published by [Bollettino del Gruppo Micologico "B. Bresadola"](#) in Trento, Italy, 2000