Bottom line at the top: It is very unlikely that people with an allergy to sulfa antibiotics will also react to other biologics whose name has a "sulf" in it.

A reader asked: “If I am allergic to sulfa-based medicines, is it okay to take DMSO (dimethyl sulfoxide) or glucosamine chondroitin sulfate? I read different opinions and am perplexed.”

Sulfur is an element, like sodium, silver and helium. Sulfur is ubiquitous in nature. Our body’s proteins naturally contain sulfur-containing amino acids. Sulfur and sulfur-containing antibiotics are too small to trigger the immune system to an allergic response.

“Sulf” is the short name for a class of antibiotics whose structures include sulfur embedded in complexes called sulfonamides. The most common sulfonamide antibiotic in the U.S. is trimethoprim-sulfamethoxazole (brand name Bactrim or Septra). Sulfonamides are sufficiently foreign to our bodies that our immune system might notice attack them.

The immune system attacks foreign things, for example pollen, bacteria, particulates and complex chemicals in medications or herbs, in an attempt to get rid of them. Sometimes we do this calmly, as when we prevent a virus from causing an infection. Sometimes there is a hyper response, typically in people who have a tendency to allergies. In either case, what the immune system attacks is just a portion of the foreign substance, called an antigen.

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For the same reason, there are a lot of medications that contain sulfur in non-sulfonamide structures which will not trigger a cross-reactive allergy.

As long as we are discussing reactions to sulfur entities, I should mention sulfites, which are strong antioxidants used to prevent browning of dried fruits and oxidation of other foods. Some intravenous medications contain sulfites to prevent degradation in storage. Sulfite sensitivity can cause a seriously life-threatening asthma attack or merely unpleasant hives or mundane allergic symptoms. There is no structural similarity between sulfites and sulfa antibiotics and the two ‘allergies’ are not related.

Non-antibiotic sulfonamide drugs, uncommon causes of allergic reactions: acetazolamide, bosentan, bumetanide, celecoxib, chlorothiazide, chlorthalidone, diazoxide, dofetilide, dorzolamide, dronedarone, furosemide, glyburide and other sulfonylurea anti-diabetic agents,
hydrochlorothiazide, ibutalide, indapamide, metolazone, probenecid, sotalol, sulfasalazine, sulthiame, sumatriptan, tamsulosin, torsemide, zonisamide and some of the anti-HIV medications.