

Partial list of medicines and other substances thought to be unsafe or safe in individuals with G6PD deficiency

Medicines and other substances likely to be **UNSAFE** in moderate to severe G6PD deficiency*

Medications

Chlorpropamide

Dabrafenib

Dapsone (diaminodiphenyl sulfone)

Fluoroquinolones (ciprofloxacin, moxifloxacin, norfloxacin, ofloxacin)[¶]Methylene blue (methylthioninium chloride)^ΔNalidixic acid[◇]Nitrofurantoin, nifuratel, and nitrofurazone (nitrofurantoin)[◇]

Phenazopyridine (pyridium)

Primaquine and tafenoquine

Rasburicase and pegloticase

Sulfonylureas (eg, glipizide, glyburide [glibenclamide])

Chemical exposures and foods

Fava beans

Henna compounds (black and red Egyptian)

Naphthalene (mothballs, lavatory deodorant)

Phenylhydrazine

"RUSH" (isobutyl nitrite, amyl nitrite)

Medicines that are **PROBABLY SAFE given in usual therapeutic doses in G6PD deficiency*; NOTE: some of these were previously considered unsafe; safety in Class I variants is generally not known**

Acetaminophen (Tylenol, Paracetamol)

Aminophenazone, dipyrone, and metamizole (NSAIDs) [◇]

Antazoline (antihistamine)

Antipyrine (phenazone)

Ascorbic acid (vitamin C)

Aspirin (acetylsalicylic acid)

Benzhexol (Artane)

Chloramphenicol

Chloroquine and hydroxychloroquine

Colchicine

Clotrimazole

Diphenhydramine (Benadryl)

Isoniazid

Levodopa (L-Dopa) and levodopa-carbidopa

Para-aminosalicylic acid

Para-aminobenzoic acid (PABA)

Phenylbutazone

Phenytoin

Probenecid (Benemid)

Procainamide (Pronestyl)

Pyrimethamine (Daraprim)

Quinine

Streptomycin

Sulfa-containing drugs [§] (sulfacetamide, sulfadiazine, sulfamethoxazole [Gantanol], trimethoprim-sulfamethoxazole, sulfamethoxypyridazine [Kynex], sulfanilamide, sulfisoxazole [Gantrisin])

Tiaprofenic acid

Trimethoprim

Tripelennamine (Pyribenzamine)
Vitamin K

This is a general list and may not apply to all G6PD-deficient individuals. Use clinical judgment, and refer to UpToDate discussions, patient history, and other resources for additional information.

G6PD: glucose-6-phosphate deficiency; NSAIDs: nonsteroidal antiinflammatory drugs.

* Applies to Class I, II, and III G6PD variants. However, note that there is marked variability in reports. This list is based on evidence supporting a clear association with drug-induced hemolysis. Individual characteristics (ie, degree of G6PD deficiency, dose, presence of infection) will determine actual safety or injury. Medicines known to be unsafe in G6PD deficiency that are no longer in clinical use are excluded from this list. In cases where the patient truly requires the medication and G6PD status is unknown, it may be appropriate to administer and monitor closely.

¶ Levofloxacin is not listed because some cases of hemolytic anemia with levofloxacin have been associated with a positive Coombs test.

Δ Methylene blue is a component of some combination urinary tract products.

◇ Not available in the United States.

§ Sulfamethoxazole is widely used. Some cases of hemolysis in individuals with G6PD deficiency have been reported. Use with caution.

References:

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 3. G6PD deficiency favism association website:
http://www.g6pd.org/en/G6PDDeficiency/SafeUnsafe/DaEvitare_ISS-it.
 4. Luzzatto L, Ally M, Notaro R. Glucose-6-Phosphate Dehydrogenase Deficiency. *Blood* 2020.
 5. Luzzatto L, Seneca E. G6PD deficiency: A classic example of pharmacogenetics with on-going clinical implications. *Br J Haematol* 2014; 164:469.
 6. Youngster I, Arcavi L, Schechmaster R. Medications and glucose6-phosphate dehydrogenase deficiency. *Drug Saf* 2010; 33:713.
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