

Title: Medications Potentially Toxic to Persons with Charcot-Marie-Tooth Neuropathy

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Note: The following information is provided and maintained by Dr Thomas Bird, *GeneReviews* Neurogenetics Editor and author of the CMT Overview.

Medications Potentially Toxic to Persons with CMT

Definite High Risk ¹	Moderate to Significant Risk	Uncertain or Minor Risk	Negligible or Doubtful Risk
<ul style="list-style-type: none"> • Vinca alkaloids (vincristine) ² • Taxols (paclitaxel) ³ 	<ul style="list-style-type: none"> • Amiodarone (Cordarone) • Arsenic Trioxide (Trisenox) • Brentuximab Vedotin (Adcetris) • Bortezomib (Velcade) • Cetuximab (Erbix) • Cisplatin & oxaliplatin • Colchicine (extended use) • Dapsone • Didanosine (ddl, Videx) • Dichloroacetate • Disulfiram (Antabuse) • Fluoroquinolones ⁴ • Gold salts • Ipilimumab (Yervoy) • Leflunomide (Arava) • Lenalidomide (Revlimid) • Metronidazole/misonidazole (extended use) • Nitrofurantoin (macrobid, furadantin, macrobid) • Nitrous oxide (inhalation abuse or vitamin B₁₂ deficiency) • Nivolumab (Opdivo) • Pembrolizumab (Keytruda) • Pertuzumab (Perjeta) • Perhexiline (not used in U.S.) • Pomalidomide (Pomalyst) • Pyridoxine (megadose of vitamin B₆) • Stavudine (d4T, Zerit) • Suramin • Thalidomide • Zalcitabine (ddC, Hivid) 	<ul style="list-style-type: none"> • 5-Fluoracil • Adriamycin • Almitrine (not in U.S.) • Chloroquine • Cytarabine (high dose) • Ethambutol • Etoposide (VP-16) • Gemcitabine • Griseofulvin • Hexamethylmelamine • Hydralazine • Ifosfamide • Infliximab • Isoniazid (INH) • Lansoprazole (Prevacid) • Mefloquine • Omeprazole (Prilosec) • Penicillamine • Phenytoin (Dilantin) • Podophyllin resin • Sertraline (Zoloft) • Statins • Tacrolimus (FK506, ProGraf) • Zimeldine (not in U.S.) • a-Interferon 	<ul style="list-style-type: none"> • Allopurinol • Amitriptyline • Chloramphenicol • Chlorprothixene • Cimetidine • Clioquinil • Clofibrate • Cyclosporin A • Enalapril • Gluthethimide • Lithium • Phenelzine • Propafenone • Sulfonamides • Sulphasalazine

Based on Weimer LH & Podwall D [2006]. See also Graf et al [1996], Nishikawa et al [2008], and Porter et al [2009]. The medications listed here present differing degrees of potential risk for worsening CMT neuropathy. Always consult your treating physician before taking or changing any medication.

1. Should be avoided by all patients with CMT, including those who are asymptomatic.
2. Commonly used in cancer chemotherapy
3. Beutler et al [2014]
4. Fluoroquinolone antibiotics (e.g., levofloxacin, ciprofloxacin) may lead to an increased risk of peripheral neuropathy, with a relative risk of 1.83 in current users and a relative risk of 2.07 in new users compared to controls [Etminan et al 2014].

Literature Cited

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