

Table of Reported Drugs with Mitochondrial Toxicity

<u>Category</u>	<u>Generic Name</u>	<u>Brand Name</u>	<u>Action</u>	<u>Symptoms</u>
Analgesics- Antipyretics	Acetaminophen	Paracetamol, Tylenol, Actamin	Increases oxidative stress	Hepatopathy
	Salicylates	Aspirin, Aspegic		
	Tramadol	Tramal, Tramalgetic		
NSAIDs	Diclofenic	Voltaren		
	Indomethacin	Indocin		
	Naproxen	Aleve		
	ASA	Aspirin	Inhibits ETC and uncouples ox-phos	Reye Syndrome (hepatic failure)
Anti-viral	Interferon		Impairs mtDNA transcription	
Antipsychotic Neuroleptic Meds	Chlorpromazine	Thorazine		
	Fluphenazine	Permitil, Proloxin		

	Haloperidol	Haldol, Decanoate		
	Risperidone	Risperdal		
	Clozapine	Clozaril, Clopine		
	Amitriptyline	Elavil	Causes autonomic dysfunction	
	Amoxapine			
	Citalopram	Cipramil		
Antidepressants	Fluoxetine	Prozac		
Antiepileptic Meds	Valproic Acid,	Depakine, Depakote	Sequesters carnitine, decreases FOA, Krebs, ETC activity and ox-phos; specific complex IV inhibition	Hepatopathy
	Carbamazepine, Oxcarbazepine, Zonisamide, Topiramate, Gabapentin, Vigabatrin	Tegretol, Trileptal, Luminal, Zonegran, Topamax, Neurontin, Sabril		
	Phenytoin	Dilantin, Epanutin		

(Local) Anesthetics	Bupivacaine	Marcaine		
	Lidocaine	Xylocaine		
	Propofol (longterm anesthesia > 48 hours)	Diprivan, Propoven		
	Thiopental	Pentothal		
Inhalation Anesthetics	Isolurane, Sevoflurane	Forane, Ultane		
Muscle Relaxants	Cis-atracurium, mivacurium	N/A		
Antidiabetic Meds	Metformin	Glucophage	Inhibits ox-phos; enhanced glycolysis	Lactic Acidosis
	Thiazolidinedione	Avandia		
Anticancer Meds	Mitomycin C, Doxorubicin, Cisplatin, Cyclophosphamide	Mitosol, Platinol, Cytoxan		
	Tamoxifen			

	Cis-Platinum		Impaired mtDNA transcription	Hearing loss; cardiac toxicity; renal toxicity
Fibrate Meds	Clofibrate, Ciprofibrate	Modalin	Inhibits complex I	
Statins	Cerivastatin, Simvastin	Lipobay, Zocor		
Antiarrhythmics	Amiodarone	Cordarone	Inhibits beta-oxidation	
	Beta-blockers (Metoprolol, Propranolol)	Lopressor, Inderal	Oxidative stress	Dec exercise tolerance
Antiretroviral Meds	Zidovudine, Abacavir	Retrovir, Ziagen	Impairs mtDNA replication → depletion; decreases complex I and IV activity	Carnitine deficiency, lactic acidosis, lipodystrophy, p.neuropathy, hepatic dysfunction, myopathy
Antibiotics	Aminoglycosides	Amikacin, Gentamicin	Impairs mtDNA translation	Hearing loss; cardiac toxicity; renal toxicity
	Chloramphenicol	Chloromycetin	Inhibits mito protein synthesis	

	Tetracycline	Minocin, Sumycin	Inhibits beta-oxidation; inhibits mito protein synthesis	
	Linezolid	Zyvox		Lactic acidosis, optic and peripheral neuropathy
	Quinolones	Floxin, Ciproxin		
	Hydrocortisone, Dexamethasone, Prednisone	Cortef, Decadron		
Barbituates	Phenobarbital		Reduces mito protein synthesis; decreases # and size of mitochondria	
	Secobarbital	Seconal	Inhibits NADH dehydrogenase (complex I)	
	Butalbital	Fiorinal		
	Amobarbital	Amytal		
	Pentobarbital	Nembutal		
Anxiety Meds	Alprazolam	Xanax		

	Diazepam	Valium, Diastat		
Cholesterol Meds	Statins		Reduces endogenous coenzyme Q10	Myopathy
	Bile Acids- Cholestyramine		Inhibits ETC	
	Fenofibrate			
Steroids			Reduces transmembrane mito potential	Reports of deterioration in Kearns-Sayre syndrome