

DO NOT CRUSH MEDICATIONS at SFGH

Active Ingredient	Drug Product	Dosage Form	Reasons/ Comments
Acitretin	Soriatane	Capsule	Teratogen ^j
Alendronate	Fosamax	Tablet	Mucous membrane irritant
Aspirin EC ^h	Bayer EC, Ecotrin	Tablet/ Caplet	Enteric coated, non EC tabs available
Aspirin/dipyridamole	Aggrenox	Capsule	Slow-release
Bisacodyl	Dulcolax	Tablet	Enteric coated ^c
Bupropion SR/XL ^h	Wellbutrin SR, Wellbutrin XL	Tablet	Slow-release ^b
Cabergoline	Dostinex	Tablet	Reproductive harm, carcinogen ^j
Capecitabine	Xeloda	Tablet	Antineoplastic agent ⁱ
Carbamazepine XR ^h	Tegretol XR	Tablet	Slow-release, reproductive harm, carcinogen ^{b,j}
Chloral hydrate	Somnote	Capsule	Liquid filled
Chlorambucil	Leukeran	Tablet	Antineoplastic agent ⁱ
Cinacalcet	Sensipar	Tablet	Note: tablets are not scored and cutting may cause variable dosage accuracy
Clonazepam	Klonopin	Tablet	Teratogen ^j
Cyclophosphamide	Cytoxan	Tablet	Cytotoxic, change order to IV formulation/ route ⁱ
Cyclosporine	Sandimmune, Neoral, Gengraf	Capsule	Immunosuppressive ^{b,j}
Diclofenac	Voltaren	Tablet	Delayed-release
Didanosine	Videx EC	Capsule	Delayed-release
Diltiazem ER ^h	Cartia XT, Dilacor XR, Taztia XT	Capsule	Extended-release ^b
Diltiazem SR ^h	Cardizem CD	Capsule	Extended-release ^b
Divalproex ^h	Depakote, Depakote ER	Tablet	Delayed-release, extended-release, teratogen ^{b,j}
Docusate	Colace	Capsule	Taste ^e , liquid formulation available
Dronedarone	Multaq	Tablet	Reproductive harm ^j
Duloxetine	Cymbalta	Capsule	Extended-release ^a Note: may add contents of capsule to apple juice or applesauce but NOT chocolate
Dutasteride	Avodart	Capsule	Note: drug may cause fetal abnormalities; women who are, or may become, pregnant, should not handle capsules; all women should use caution in handling capsules, especially leaking capsules ^j
Entecavir	Baraclude	Tablet	Teratogenic in animal studies ^j
Ergocalciferol	Drisdol	Capsule	Liquid filled ^d
Erythromycin	Erythrocin	Tablet	Enteric-coated- change order to IV formulation
Etoposide	Toposar	Capsule	Cytotoxic, change order to IV formulation ⁱ
Etravirine	Intelence	Tablet	Note: tablet should be swallowed whole and not crushed; tablet may be dispersed in water and given PO or via feeding tube
Felodipine	Plendil	Tablet	Extended-release
Ferrous sulfate	Feosol	Tablet	Enteric coated ^b
Finasteride	Propecia, Proscar	Tablet	Note: women who are, or may become pregnant, should not handle crushed or broken tablets ^j
Guaifenesin ^h	Mucinex	Tablet	Slow-release ^b
Hydroxyurea	Hydrea	Capsule	Note: exposure to powder may cause serious skin toxicities; healthcare workers should wear gloves to administer ⁱ
Ibuprofen	Motrin	Tablet	Taste ^e , liquid formulation available
Imatinib	Gleevec	Tablet	Taste ^f ; Note: OK to dissolve in water or apple juice
Indinavir	Crixivan	Capsule	Taste; Note: capsule may be opened and mixed with fruit puree ^e

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Indomethacin ^h	Indocin SR	Capsule	Extended-release ^{a,b}
Isosorbide mononitrate ^h	Imdur	Tablet	Extended-release ^{b,f}
Lansoprazole	Prevacid Solu-tab	Tablet	Note: orally disintegrating, do not swallow; dissolve in water only & dispense via dosing syringe or NG tube
Levetiracetam	Keppra	Tablet	Taste ^e - liquid formulation available from pharmacy
Lithium ^h	Lithobid	Tablet	Extended-release ^b
Lomustine	CeeNU	Capsule	Antineoplastic agent ⁱ
Lopinavir/ ritonavir	Kaletra	Tablet	Film-coated ^b
Lubiprostone	Amitiza	Capsule	Slow-release
Melphalan	Alkeran	Tablet	Antineoplastic agent ⁱ
Mercaptopurine	Purinethol	Tablet	Reproductive harm ^j
Mesalamine	Lialda	Tablet	Delayed-release
Mesalamine	Pentasa	Capsule	Slow-release
Methotrexate	Trexall, Rheumatrex	Tablet	Antineoplastic agent ⁱ
Methylergonovine	Methergine	Tablet	Oxytocic
Metoprolol succinate	Toprol XL	Tablet	Slow-release ^{b,f}
Mifepristone	Mifeprex	Tablet	Oxytocic
Morphine ^h	MS Contin	Tablet	Extended-release ^b
Mycophenolate	Cellcept	Capsule/ tablet	Teratogenic potential ^{b,j}
Nicotinic acid	Niaspan	Tablet	Extended-release
Nifedipine ^h	Adalat CC, Nifediac CC, Procardia XL	Tablet	Extended-release
Nimodipine	Nimotop	Capsule	Liquid filled ^{b,d}
Oxcarbazepine	Trileptal	Tablet	Reproductive harm, teratogen, carcinogen ^j
Pancrelipase	Zenpep, Pancrease	Capsule	Delayed-release ^a
Pantoprazole	Protonix	Tablet	Slow-release
Paroxetine	Paxil	Tablet	Teratogen ^{b,j}
Pentoxifylline	Trental	Tablet	Extended-release
Phenoxybenzamine	Dibenzyline	Capsule	Carcinogen, mutagen ^j
Potassium	K-Dur	Tablet	Extended-release ^b
Procarbazine	Mayulane	Capsule	Antineoplastic agent ⁱ
Propranolol ^h	Inderal LA	Capsule	Extended-release ^b
Pyridostigmine	Mestinon ER	Tablet	Extended-release ^b
Raloxifene	Evista	Tablet	Taste, teratogenic potential ^{g,j}
Ribavirin	Copegus, Rebetol, Ribasphere	Tablet/ capsule	Teratogen ^j
Risperidone	Risperdal	Tablet	Hazardous drug, change order to disintegrating tablet or liquid ^{b,j}
Ritonavir	Norvir	Tablet	Note: crushing tablets has resulted in decreased bioavailability of drug ^b
Sevelamer	Renagel	Tablet	Note: tablets expand in liquid if broken or crushed—can clog feeding tube; can administer sevelamer carbonate (Renvela) packets via feeding tube
Tacrolimus	Prograf	Capsule	Immunosuppressive ^{b,j}
Tamsulosin	Flomax	Capsule	Slow-release
Tetracycline	Sumycin	Capsule	Teratogen ^j
Theophylline	Theophylline CR, Uniphyll	Tablet/ capsule	Extended-release Note: capsule contains beads that dissolve throughout GI tract ^b
Tolterodine ^h	Detrol LA	Capsule	Extended-release ^b
Topiramate	Topamax	Tablet	Bitter taste ^e
Valganciclovir	Valcyte	Tablet	Teratogenic and irritant potential ^{b,g,j}

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Valproic acid	Depakote, Depakote ER	Tablet/Capsule	Teratogen ^{b,j}
Venlafaxine XR ^h	Effexor XR	Capsule	Extended-release ^b
Verapamil SR	Calan SR	Tablet	Slow-release ^{b,f}
Vitamin A	A-25	Capsule	Liquid filled ^d
Ziprasidone	Geodon	Capsule	Genotoxin, carcinogen, teratogen ^j
Zonisamide	Zonegran	Capsule	Teratogen ^j

- a. Capsule may be opened and contents taken without chewing or crushing; soft food such as applesauce or pudding may facilitate administration. Contents may generally be given via a nasogastric tube providing all the contents are flushed down the tube
- b. Liquid or immediate tablet/capsule dosage forms of this medication are available; however, dose, frequency of administration and manufacturers may differ from that of the solid/slow-release form
- c. Antacids or milk may prematurely dissolve the coating of the tablet
- d. Capsule may be opened and the liquid contents removed for administration
- e. The taste of this product in a liquid form would likely be unacceptable to the patient; administration via nasogastric tube is acceptable
- f. Tablet is scored and may be broken in half without affecting release characteristics
- g. Skin contact may enhance tumor production; avoid direct contact
- h. Various formulations are available (IR vs. ER,SR), please ensure formulation ordered by provider and product dispensed from pharmacy both match
- i. Hazardous agent- cytotoxic- crushing is only allowed in the pharmacy's chemotherapy hood
- j. Hazardous agent- if crushing, use PPE (gloves, gown, safety glasses, fitted N95 respirator, as needed to prevent exposure). Use liquid formulation if available.

References:

1. Mitchell JF. Oral Dosage Forms That Should Not Be Crushed. August 2013. www.ismp.org (Accessed September 26, 2013)
2. Miller D, Miller H. To crush or not to crush? What to consider before giving medications to a patient with a tube or who has trouble swallowing. *Nursing* 2000; 30:50-2.
3. www.cdc.gov/NIOSH (June 2012). NIOSH List of Antineoplastic and Other Hazardous Drugs in Health Care Settings.
4. SFGH Administrative Policy 16.36; Non-Cytotoxic Hazardous Drugs Management, Appendix A. (Updated 9/2013)

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