

# Herbal & Mineral Supplements Treatment Selector

Charts revised July 2022. Full information available at [www.hiv-druginteractions.org](http://www.hiv-druginteractions.org)

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	ATV/c	ATV/r	DRV/c	DRV/r	LPV/r	DOR	EFV	ETV	NVP	RPV oral	FTR	MVC	BIC/F/TAF	CAB oral	CAB/ RPV	DTG	EVG/c/ F/TAF	EVG/c/ F/TDF	RAL	FTC/ TAF	FTC/ TDF	TDF
<b>Herbal Supplements</b>																						
African potato	↔	↔	↔	↔	↔	↓	↔	↔	↔	↓	↓	↓	↓	↔	↓	↓	↓	↔	↓	↓ <sub>a</sub>	↔	↔
Aloe vera	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Black cohosh	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Cat's claw	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↔	↔	↑	↔	↑	↑	↔	↔	↔	↔
Cubeb pepper	↔	↔	↔	↔	↔	↑	↔	↔	↔	↑	↔	↑	↔	↔	↑	↔	↑	↑	↔	↑ <sub>a</sub>	↑ <sub>a</sub>	↑
Echinacea	↔	↔	↔	↔	↔	↓	↔	↔	↔	↓	↓	↓	↓	↔	↓	↔	↔	↔	↔	↔	↔	↔
Eucalyptus globulus	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Garlic	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↔	↔	↔	↓	↓	↓	↔	↓ <sub>a</sub>	↔	↔
Ginger	↔	↔	↔	↔	↔	↑	↔	↔	↔	↑	↔	↑	↔	↔	↑	↔	↔	↔	↔	↔	↔	↔
Ginkgo biloba	↔	↔	↔	↔	↔	↓	↓	↓	↓	↓	↓	↓	↓	↔	↓	↓	↔	↔	↔	↔	↔	↔
Ginseng	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Goldenseal root	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Grapefruit juice	↔	↔	↔	↔	↔	↑	↔	↔	↔	↑	↔	↑	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Green tea extracts	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	? <sub>b</sub>	↔	↔	↔	? <sub>b</sub>	? <sub>b</sub>	↔	? <sub>b</sub>	? <sub>b</sub>	? <sub>b</sub>
Guggulsterone	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↔	↓	↔	↔	↓	↔	↓	↓	↔	↔	↔	↔
Hops	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↔	↓	↓	↓	↓	↔	↓ <sub>a</sub>	↔	↔
Inula racemosa	↔	↔	↔	↔	↔	↑	↔	↔	↔	↑	↑	↑	↔	↔	↑	↔	↔	↔	↔	↔	↔	↔
Liquorice	↔	↔	↔	↔	↔	↓	↔	↔	↔	↓	↓	↓	↓	↔	↓	↓	↑	↑	↔	↑ <sub>a</sub>	↑ <sub>a</sub>	↑
Malabar nut tree	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↔	↓	↓	↓	↓	↓	↔	↔	↔
Menthol	↔	↔	↔	↔	↔	↑	↔	↔	↔	↑	↑	↑	↔	↔	↑	↔	↔	↔	↔	↔	↔	↔
Milk thistle	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Quercetin	↑?	↑?	↑?	↑?	↑?	↑	↑?	↑?	↑?	↑	↔	↑	↔	↔	↑	↔	↔	↔	↔	↔	↔	↔
Red yeast rice	↑	↑	↑	↑	↑	↔	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Saw palmetto	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Seville orange juice	↔	↔	↔	↔	↔	↑	↔	↔	↔	↑	↔	↑	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
St John's wort	↓ <sub>c</sub>	↓ <sub>c</sub>	↓ <sub>c</sub>	↓ <sub>c</sub>	↓ <sub>c</sub>	↓ <sub>c</sub>	↓ <sub>c</sub>	↓ <sub>c</sub>	↓ <sub>c</sub>	↓ <sub>c</sub>	↓ <sub>c</sub>	↓ <sub>c</sub>	↓ <sub>c</sub>	↓ <sub>c</sub>	↓ <sub>c</sub>	↓ <sub>c</sub>	↓ <sub>c</sub>	↓ <sub>c</sub>	↓	↓ <sub>c,d</sub>	↔	↔
Turmeric	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Valerian	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
<b>Mineral supplements</b>																						
Ascorbic acid	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓ <sub>e</sub>	↓ <sub>e</sub>	↔	↓ <sub>e</sub>	↓ <sub>e</sub>	↓ <sub>e</sub>	↓ <sub>e</sub>	↔	↔	↔
Calcium	↓ <sub>f</sub>	↓ <sub>f</sub>	↔	↔	↔	↔	↔	↔	↔	↓ <sub>f</sub>	↔	↔	↓	↓	↔	↓	↓	↓	↓	↔	↔	↔
Ferrous fumarate	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓	↓	↔	↓	↓	↓	↓	↔	↔	↔
Folic acid	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓ <sub>e</sub>	↓ <sub>e</sub>	↔	↓ <sub>e</sub>	↓ <sub>e</sub>	↓ <sub>e</sub>	↓ <sub>e</sub>	↔	↔	↔
Iodine	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓ <sub>e</sub>	↓ <sub>e</sub>	↔	↓ <sub>e</sub>	↓ <sub>e</sub>	↓ <sub>e</sub>	↓ <sub>e</sub>	↔	↔	↔
Iron (infusion/injection)	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Iron (oral)	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓	↓	↔	↓	↓	↓	↓	↔	↔	↔
Magnesium	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓	↓	↔	↓	↓	↓	↓	↔	↔	↔
Multivitamins	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓	↓	↔	↓	↓	↓	↓	↔	↔	↔
Nicotinamide	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓ <sub>e</sub>	↓ <sub>e</sub>	↔	↓ <sub>e</sub>	↓ <sub>e</sub>	↓ <sub>e</sub>	↓ <sub>e</sub>	↔	↔	↔
Various vitamins	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓ <sub>g</sub>	↓ <sub>g</sub>	↔	↓ <sub>g</sub>	↓ <sub>g</sub>	↓ <sub>g</sub>	↓ <sub>g</sub>	↔	↔	↔

**Interactions with CAB/RPV long acting injections**

Pharmacokinetic interactions shown are mostly with RPV. QT interactions shown are with RPV.

**Interactions with Ibalizumab**

None

**Interactions with Abacavir (ABC), Lamivudine (3TC) or Zidovudine (ZDV)**

ABC: No clinically relevant interactions expected.  
 3TC: No clinically relevant interactions expected.  
 ZDV: No clinically relevant interactions expected.

**Colour Legend**

- No clinically significant interaction expected.
- These drugs should not be coadministered.
- Potential interaction which may require a dose adjustment or close monitoring.
- Potential interaction predicted to be of weak intensity. No *a priori* dosage adjustment is recommended.

**Text Legend**

- ↑ Potential increased exposure of the supplement
- ↓ Potential decreased exposure of the supplement
- ↔ No significant effect
- ♥ One or both drugs may cause QT and/or PR prolongation. ECG monitoring is advised if coadministered with atazanavir or lopinavir; caution is advised with rilpivirine as supratherapeutic doses of rilpivirine (75 and 300 mg once daily) were shown to prolong the QT interval.
- Numbers refer to increase or decrease in AUC as observed in drug-drug interaction studies.
- ↑ Potential increased exposure of HIV drug
- ↓ Potential decreased exposure of HIV drug

**Notes**

- a** No effect on emtricitabine expected.
- b** The effect on tenofovir is unclear as green tea extracts appeared to inhibit P-gp in vivo, but a contradictory effect was observed in vivo.
- c** Coadministration is not recommended in product label. However, a low risk of a clinically relevant pharmacokinetic interaction has been shown with low-hyperforin formulations (<1 mg/day) of St John's Wort (hyperforin is the constituent responsible for induction of CYPs and P-gp). Coadministration may be considered with St John's Wort formulations that clearly state the hyperforin content and which have a total daily hyperforin dose of 1 mg or less.
- d** No effect on emtricitabine is expected, but tenofovir alafenamide concentrations may decrease which may result in loss of therapeutic effect and development of resistance.
- e** Only when used in multivitamin preparations as they can contain mineral supplements.
- f** Calcium supplements containing calcium carbonate may decrease atazanavir or rilpivirine concentrations due to gastric pH increase.
- g** Only for vitamin preparations containing divalent cations.

Abbreviations ATV atazanavir DRV darunavir LPV lopinavir /c cobicistat /r ritonavir DOR doravirine EFV efavirenz ETV etravirine NVP nevirapine RPV rilpivirine FTR Fostemsavir MVC maraviroc BIC bictegravir CAB Cabotegravir DTG dolutegravir EVG elvitegravir RAL raltegravir FTC tenofovir alafenamide TDF tenofovir-DP

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