

# Herbal & Mineral Supplements

Charts revised November 2024. 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	LEN	MVC	BIC/F/TAF	CAB oral	CAB/RPV	DTG	EVG/c/F/TAF	EVG/c/F/TDF	RAL	FTC/TAF	FTC/TDF
<b>Herbal Supplements</b>																						
African potato	↔	↔	↔	↔	↔	↓	↔	↔	↔	↓	↓	↓	↓	↓	↔	↓	↓	↓	↔	↓	↓ a	↔
Aloe vera	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Black cohosh	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Cat's claw	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↔	↔	↑	↔	↑	↑	↔	↔	↔
Cubeb pepper	↔	↔	↔	↔	↔	↑	↔	↔	↔	↑	↔	↑	↑	↔	↔	↑	↔	↑	↑	↔	↑ a	↑ a
Echinacea	↔	↔	↔	↔	↔	↓	↔	↔	↔	↓	↓	↔	↓	↓	↔	↓	↔	↔	↔	↔	↔	↔
Eucalyptus globulus	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Garlic	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↔	↓	↓	↔	↔	↓	↓	↓	↔	↓ a	↔
Ginger	↔	↔	↔	↔	↔	↑	↔	↔	↔	↑	↔	↔	↑	↔	↔	↑	↔	↔	↔	↔	↔	↔
Ginkgo biloba	↔	↔	↔	↔	↔	↓	↓	↓	↓	↓	↓	↓	↓	↓	↔	↓	↓	↔	↔	↔	↔	↔
Ginseng	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Goldenseal root	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Grapefruit juice	↔	↔	↔	↔	↔	↑	↔	↔	↔	↑	↔	↔	↑	↔	↔	↔	↔	↔	↔	↔	↔	↔
Green tea extracts	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	? b	↔	↔	↔	? b	? b	↔	? b	? b
Guggulsterone	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↔	↓	↓	↓	↔	↓	↔	↓	↓	↔	↔	↔
Hops	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↔	↓	↓	↓	↓	↔	↓ a	↔
Inula racemosa	↔	↔	↔	↔	↔	↑	↔	↔	↔	↑	↔	↔	↑	↔	↔	↑	↔	↔	↔	↔	↔	↔
Liquorice	↔	↔	↔	↔	↔	↓	↔	↔	↔	↓	↓	↓	↓	↓	↔	↓	↓	↑	↑	↔	↑ a	↑ a
Malabar nut tree	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↔	↓	↓	↓	↓	↓	↔	↔
Menthol	↔	↔	↔	↔	↔	↑	↔	↔	↔	↑	↑	↔	↑	↔	↔	↑	↔	↔	↔	↔	↔	↔
Milk thistle	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Quercetin	↑?	↑?	↑?	↑?	↑?	↑	↑?	↑?	↑?	↑	↔	↔	↑	↔	↔	↑	↔	↔	↔	↔	↔	↔
Red yeast rice	↑	↑	↑	↑	↑	↔	↓	↓	↓	↔	↔	↑	↔	↔	↔	↔	↔	↑	↑	↔	↔	↔
Saw palmetto	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Seville orange juice	↔	↔	↔	↔	↔	↑	↔	↔	↔	↑	↔	↔	↑	↔	↔	↔	↔	↔	↔	↔	↔	↔
St John's wort	↓ c	↓ c	↓ c	↓ c	↓ c	↓ c	↓ c	↓ c	↓ c	↓ c	↓ c	↓ c	↓ c	↓ c	↓ c	↓ c	↓	↓ c	↓ c	↓	↓ c,d	↔
Turmeric	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑↓?	? b	↔	↔	↔	? b	? b	↔	? b	? b
Valerian	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
<b>Mineral supplements</b>																						
Ascorbic acid	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓ e	↓ e	↔	↓ e	↓ e	↓ e	↓ e	↔	↔
Calcium	↓ f	↓ f	↔	↔	↔	↔	↔	↔	↔	↓ f	↔	↔	↔	↓	↓	↔	↓	↓	↓	↓	↔	↔
Ferrous fumarate	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓	↓	↔	↓	↓	↓	↓	↔	↔
Folic acid	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓ e	↓ e	↔	↓ e	↓ e	↓ e	↓ e	↔	↔
Iodine	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓ e	↓ e	↔	↓ e	↓ e	↓ e	↓ e	↔	↔
Iron (infusion/injection)	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Iron (oral)	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓	↓	↔	↓	↓	↓	↓	↔	↔
Magnesium	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓	↓	↔	↓	↓	↓	↓	↔	↔
Multivitamins	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓	↓	↔	↓	↓	↓	↓	↔	↔
Nicotinamide	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓ e	↓ e	↔	↓ e	↓ e	↓ e	↓ e	↔	↔
Various vitamins	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓ g	↓ g	↔	↓ g	↓ g	↓ g	↓ g	↔	↔
Zinc	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓	↓	↔	↓	↓	↓	↓	↔	↔

**Interactions with CAB/RPV long acting injections**  
 Pharmacokinetic interactions shown are mostly with RPV.  
 QT interactions shown are with RPV.

**Interactions with Lenacapavir**  
 Residual LEN may affect exposure of sensitive CYP3A4 substrates initiated within 9 months after stopping subcutaneous LEN.

**Interactions with Ibalizumab**  
 None

**Interactions with Abacavir (ABC), Lamivudine (3TC), Tenofovir-DF (TDF) or Zidovudine (ZDV)**  
 ABC: No clinically relevant interactions expected.  
 3TC: No clinically relevant interactions expected.  
 TDF: The effect of green tea on tenofovir is unclear (b).  
 TDF: Caution with Cat's claw and Cubeb pepper as tenofovir systemic concentrations could potentially increase.  
 ZDV: No clinically relevant interactions expected.

**Colour Legend**

- ↔ No clinically significant interaction expected.
- ↓ Potential decreased exposure of the supplement.
- ↑ Potential increased exposure of the supplement.
- ↔ No significant effect.
- ↓ Potential decreased exposure of HIV drug.
- ↑ Potential increased exposure of HIV drug.
- Red box: These drugs should not be coadministered.
- Orange box: Potential interaction which may require a dose adjustment or close monitoring.
- Yellow box: Potential interaction predicted to be of weak intensity. No a priori dosage adjustment is recommended.

**Notes**

- a No effect on emtricitabine expected.
- b The effect on tenofovir is unclear as green tea extracts or turmeric appeared to inhibit P-gp in vivo, but a contradictory effect was observed in vivo.
- c Co-administration 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). Co-administration 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.