

# Didanosine PK Fact Sheet

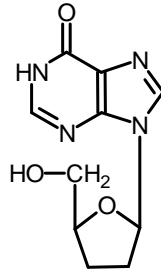
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## Details

<b>Generic Name</b>	Didanosine (ddl)
<b>Trade Name</b>	Videx®, Videx EC®
<b>Class</b>	Nucleoside Reverse Transcriptase Inhibitor
<b>Molecular Weight</b>	236.2
<b>Structure</b>	



## Summary of Key Pharmacokinetic Parameters

Didanosine is enzymatically converted to dideoxyadenosine-triphosphate (ddATP), its active metabolite.

<b>Linearity/non-linearity</b>	Increases in plasma concentrations were dose proportional over the range of 50-400 mg.
<b>Plasma half life</b>	~1.4 h
<b>C<sub>max</sub></b>	933 ± 434 ng/ml (400 mg once daily, Videx EC)
<b>AUC</b>	2432 ± 919 ng/ml.h (400 mg once daily, Videx EC)
<b>Bioavailability</b>	~42% (following single dose of buffered formulation)
<b>Absorption</b>	To minimise the impact of food, Videx gastro-resistant capsules should be administered on an empty stomach at least 2 hours before or 2 hours after a meal.
<b>Protein Binding</b>	<5%
<b>Volume of Distribution</b>	54 L
<b>CSF:Plasma ratio</b>	~21% of corresponding plasma concentration.
<b>Semen:Plasma ratio</b>	Median didanosine concentrations have been found to be greater in semen than in plasma: 455 ng/ml (range <50–2190 ng/ml) in seminal plasma and <50 (range <50–860 ng/ml) in blood. Large interindividual variability was noted <sup>[1]</sup> .
<b>Renal Clearance</b>	~20%
<b>Renal Impairment</b>	Half-life of didanosine after oral administration increased from an average of 1.4 hours in subjects with normal renal function to 4.1 hours in subjects with severe renal impairment requiring dialysis. Patients with a creatinine clearance <60 ml/min may be at greater risk of didanosine toxicity due to decreased drug clearance. A dose reduction is recommended for these patients.
<b>Hepatic Impairment</b>	Metabolism of didanosine may be altered in patients with severe hepatic impairment. No specific dose adjustment can be recommended.

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## Metabolism and Distribution

<i>Metabolised by</i>	Xanthine oxidase. Thought to follow the same pathways responsible for elimination of endogenous purines.
<i>Inducer of</i>	N/A
<i>Inhibitor of</i>	N/A
<i>Transported by</i>	Unknown

## References

Unless otherwise stated (see below), information is from:

Videx® Summary of Product Characteristics, Bristol-Myers Squibb.

Videx®US Prescribing Information, Bristol-Myers Squibb.

1. Cruciani M, Liuzzi G, Chirianni A, *et al.* Penetration of didanosine in semen of HIV-1-infected men. *J Antimicrob Chemother.* 2006 ;57(6): 1244-1247.