

**Draft Guidance on Calcitriol**

This draft guidance, once finalized, will represent the Food and Drug Administration's (FDA's) current thinking on this topic. It does not create or confer any rights for or on any person and does not operate to bind FDA or the public. You can use an alternative approach if the approach satisfies the requirements of the applicable statutes and regulations. If you want to discuss an alternative approach, contact the Office of Generic Drugs.

**Active ingredient:** Calcitriol

**Form/Route:** Capsules/Oral

**Recommended studies:** 2 studies

1. Type of study: Fasting  
Design: Single-dose, two-way crossover *in-vivo*  
Strength: 0.5 mcg  
Subjects: Healthy males and nonpregnant females, general population.  
Additional Comments: A baseline calcitriol should be determined by taking blood samples at 0, -6, -12, and -18 hours prior to dosing. Subjects should be housed at the clinic, and served standardized meals with similar Vitamin D content to that of the meals served on the pharmacokinetic sampling day. For each subject, an average baseline calcitriol concentration should be determined and subtracted from the plasma concentrations determined on the pharmacokinetic sampling day. Baseline concentrations should be determined for each dosing period, and baseline corrections should be period specific. If a negative plasma concentration value results after baseline correction, this should be set to 0 prior to calculating the baseline-corrected AUC.

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2. Type of study: Fed  
Design: Single-dose, two-way crossover *in-vivo*  
Strength: 0.5 mg  
Subjects: Healthy males and females, general population.  
Additional Comments: Please see comment above.

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**Analytes to measure (in appropriate biological fluid):** Calcitriol in plasma.

**Bioequivalence based on (90% CI):** Baseline-corrected calcitriol

**Waiver request of in-vivo testing:** 0.25 mcg based on (i) acceptable bioequivalence studies on the 0.5 mcg strength, (ii) proportionally similar across all strengths, and (iii) acceptable in vitro dissolution testing of all strengths.

**Dissolution test method and sampling times:**

Please note that a **Dissolution Methods Database** is available to the public at the OGD website at <http://www.accessdata.fda.gov/scripts/cder/dissolution/index.cfm>. Please find the dissolution information for this product at this website. Please conduct comparative dissolution testing on 12 dosage units each of all strengths of the test and reference products. Specifications will be determined upon review of the application.