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# Flucytosine

National Cancer Institute

## Source

National Cancer Institute. *Flucytosine*. NCI Thesaurus. Code C501.

A pyrimidine compound and a fluorinated cytosine analog exhibiting antifungal activity. After penetration into the fungal cells, flucytosine is deaminated to its active metabolite 5-fluorouracil. 5-fluorouracil replaces uracil during fungal RNA synthesis, thereby inhibiting fungal protein synthesis. In addition, fluorouracil is further metabolized to 5-fluorodeoxyuridylic acid monophosphate, which inhibits thymidylate synthetase, thereby interrupting nucleotide metabolism, DNA synthesis and ultimately protein synthesis.