

## Echinocandins

Echinocandins are antifungal medications that work by inhibiting cell wall synthesis. They do this by inhibiting the synthesis of Beta-glucan. These drugs are used for treating invasive aspergillosis and candida. Side effects of echinocandin use are rare but can include GI upset and flushing due to histamine release.



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### "-Fungin" Suffix

[Funyuns](#)

Echinocandins are recognizable because they share a "-fungin" suffix. Example medications include caspofungin and micafungin.

### Indications

#### Invasive Aspergillosis

[Invading Asparagus](#)

Echinocandins are used empirically in patients with invasive aspergillosis. These medications can also be used in patients with refractory infections or who are intolerant of other medications, such as amphotericin B or itraconazole.

#### Candida

[Canada](#)

This drug class is approved for use against invasive candidiasis as well, with specific indications for intra-abdominal abscesses, peritonitis, pleural cavity infections, and esophagitis.

### Mechanism

#### Inhibits Cell Wall Synthesis

[Disrupted Cell Wall](#)

This drug class makes fungi susceptible to destruction by inhibiting cell wall synthesis, thus decreasing fungal cell wall integrity.

#### Inhibits Synthesis of Beta-glucan

[Inhibiting-chains on Beta-fish with Glue-can](#)

This drug class inhibits the enzyme that makes Beta-glucan, which is an integral part of fungal cell walls.

### Side Effects

#### GI Distress

[GI-guy with Flare-gun](#)

This drug class has a very low incidence of side effects, but patients have been known to complain of GI upset and distress.

**Flushing**

Flashlight

Patients can complain of flushing or hypersensitivity reactions, as echinocandins can promote histamine release.