# 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.