

# Rifampin

Rifampin, also called rifampicin, is a bactericidal antibiotic commonly used in the treatment of active tuberculosis. Rifampin inhibits bacterial RNA synthesis by inhibiting RNA polymerase. Rifampin resistance can develop quickly due to alteration of the binding sites on RNA polymerase so monotherapy should not be used in treatment of infections. Instead, rifampin is commonly used in combination with other antibiotics. Besides mycobacterium TB, rifampin is also used in the treatment of haemophilus influenza, leprosy, and meningitis. Rifampin is a well known P450 inducer and can increase the rate of metabolism of other drugs that are cleared by the liver through the p450 system. Taking rifampin can cause bodily fluids like urine and tears to become orange red in color, which may be alarming but is completely benign.



**PLAY PICMONIC** 

### Tuberculosis (TB)

TB-TV

Rifampin, also called rifampicin, is a bactericidal antibiotic commonly used in the treatment of active tuberculosis. It is never used as monotherapy due to high resistance rates but is used with isoniazid, ethambutol, and pyrazinamide.

### **Blocks RNA Polymerization**

RNA Rhino Police Polymer Blocked

The mechanism of action of rifampin is to block bacterial RNA polymerization.

## Haemophilus influenzae Type B

Heme-man in Flute (B) Bee

Besides tuberculosis, rifampin can be used in to treat infection by Haemophilus influenza.

## Leprosy

Leopard

Leprosy, also called Hansen's disease, is a mycobacterium. Therefore, rifampin can also be used in the treatment of leprosy. Rifampin is used in combination with dapsone and clofazimine for standard treatment of Hansen's disease.

### Meningitis

Men-in-tights

Rifampin can be used in prophylactic therapy against meningococcal infection.

#### P450 inducer

Pea 450 Inducer-rocket

Rifampin is a well known P450 inducer and can increase the rate of metabolism of other drugs that are cleared by the liver through the p450 system.

## Red-orange urine

Red-orange urine

Taking rifampin can cause bodily fluids like urine and tears to become orange red in color, which may be alarming but is completely benign.