

## An Overview on Threats to Human Health in Fungal Pathogens

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### DESCRIPTION

Fungal pathogens are microorganisms that cause fungal infections in humans, animals and plants. These pathogens are ubiquitous and can be found in soil, water, air and various living organisms. Fungal infections are a significant cause of morbidity and mortality worldwide, particularly in individuals with weakened immune systems. In this article, we will explore the different types of fungal pathogens and their impact on human health. Fungal illnesses kill more than 1.6 million people each year, a rate comparable to TB and more than three times that of malaria.

There are various types of fungal pathogens that cause infections in humans. Some of the most common fungal pathogens include *Aspergillus*, *Candida*, *Cryptococcus* and *Histoplasma*. *Aspergillus* is a genus of molds that can cause various diseases, such as aspergillosis and allergic bronchopulmonary aspergillosis. *Candida* is a genus of yeasts that can cause infections in the mouth, throat, vagina and bloodstream. *Cryptococcus* is a type of fungus that can cause meningitis, a life-threatening condition that affects the brain and spinal cord. *Histoplasma* is a type of fungus that can cause histoplasmosis, a respiratory infection that can affect the lungs and other organs.

Fungal infections can affect different parts of the body, such as the skin, nails, hair and internal organs. Some of the most common types of fungal infections include athlete's foot, ringworm, thrush and fungal pneumonia. Fungal infections can also cause more severe conditions, such as sepsis and invasive fungal infections.

Individuals with weakened immune systems are at a higher risk of developing fungal infections. This includes individuals with

HIV/AIDS, cancer, organ transplant recipients and those taking immunosuppressive medications. Fungal infections can also affect individuals with diabetes, asthma and other chronic illnesses.

Diagnosing fungal infections can be challenging, as the symptoms can be similar to other conditions, such as bacterial infections and allergies. Healthcare professionals typically use a combination of clinical symptoms, laboratory tests, and imaging studies to diagnose fungal infections. Treatment for fungal infections typically involves antifungal medications, such as fluconazole, amphotericin B, caspofungin, flucytosine and voriconazole. However, the effectiveness of treatment depends on the type of fungal infection, the severity of the infection, and the individual's immune system.

Preventing fungal infections involves taking precautions to reduce exposure to fungal pathogens. This includes practicing good hygiene, such as washing hands regularly, keeping skin clean and dry, and avoiding sharing personal items, such as towels and combs. Individuals with weakened immune systems may also need to take additional precautions, such as avoiding contact with soil and plants.

We conclude that fungal pathogens are a significant cause of morbidity and mortality worldwide. Fungal infections can affect different parts of the body and can be challenging to diagnose and treat. Individuals with weakened immune systems are at a higher risk of developing fungal infections and need to take precautions to reduce their exposure to fungal pathogens. As research into fungal pathogens continues, there is hope for the development of new treatments and prevention strategies to combat these invisible threats.

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