

## Helicobacter pylori: A Contemporary Perspective on Pathogenesis, Diagnosis and Treatment

### Strategies

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**Abstract:** Helicobacter pylori (H. pylori) is a Gram-negative bacterium that colonizes the gastric mucosa and is associated with various gastrointestinal disorders. H. pylori is a pervasive pathogen, infecting nearly 50% of the world's population, and presents a substantial concern due to its link with gastric cancer, ranking as the third most common cause of global cancer-related mortality. This review article provides an updated and comprehensive overview of the current understanding of H. pylori infection, focusing on its pathogenesis, diagnosis, and treatment strategies. The intricate mechanisms underlying its pathogenesis, including the virulence factors and host interactions, are discussed in detail. The diagnostic methods, ranging from the traditional techniques to the advanced molecular approaches, are explored, highlighting their strengths and limitations. The evolving landscape of treatment strategies, including antibiotic regimens and emerging therapeutic approaches, is thoroughly examined. Through a critical synthesis of the recent research findings, this article offers valuable insights into the contemporary knowledge of Helicobacter pylori infection, guiding both clinicians and researchers toward effective management and future directions in combating this global health challenge..