Barry Marshall was born in 1951 in Kalgoorlie, east of Perth, Western Australia. As early as high school, he was known to have exceptional knowledge in Science and Math but he opted to pursue Medical School. He graduated MBBS Bachelor of Medicine, Bachelor of Surgery.

During the 1970s, there was a sudden increase in the incidence of PUD and Gastritis. In the first part of the small intestines that is connected to the stomach. This discovery led to a radical change in the treatment of Peptic Ulcer Disease which now includes eradication of the bacteria and not just gastric acid control.

The noninvasive methods to test H. pylori colonization are the following: blood antibody test, stool antigen test and the carbon urea breath test. On the other hand, the more reliable ways to test H. pylori infection are biopsy during and endoscopic examination with a rapid urease test. The discovery of a bacterial cause of PUD triggered an innovation in the treatment of the disease. The treatment of PUD prior to the discovery of Helicobacter pylori was to inhibit the excessive secretion of gastric acids which can then overwhelm the protective mechanisms of the stomach to produce more gastric acids. Increase in acids damages the duodenum and the stomach by secreting high amounts of urease enzyme which serves as its protective covering. It is also a highly variable bacterium; even in a single infected patient, all the bacteria are not directed to the eradication the cause of the disease; instead, it only solved the consequence of the bacteria and not just gastric acid control.

The bacteria were in fact the cause of the disease, he wanted to gather negative samples of gastric biopsies. This quickly caught the attention of the physician since the study was about the stomach to produce more gastric acids. After a few meetings, the two gentlemen decided to make a complete pathological study of the bacteria. Barry Marshall, as a physician, can provide better biopsies, cultures and specimens. Together, the two virologists found that the bacteria were present in almost all patients with gastritis, duodenal ulcer or gastric ulcer.

After which, he became interested in an academic career combining research and clinical work. He developed an interest in the new gastric biopsies from patients suffering from PUD. From these biopsies, he noticed curved bacteria growing on the surface of 50% of the gastric biopsies taken. These gastric biopsies were taken from the antrum of the stomach of the patients. He also noted signs of an unreported bacteria thriving in extreme conditions like the extreme acidity of the stomach environment. After a few meetings, the two gentlemen decided to make a complete pathological study of the bacteria. Barry Marshall, as a physician, can provide better biopsies, cultures and specimens. Together, the two virologists found that the bacteria were present in almost all patients with gastritis, duodenal ulcer or gastric ulcer.