# HEIDELBERG DIGESTIVE TRACT TEST

#### Introduction

Many patients complain of digestive problems. These complaints are difficult to assess as various factors are implicated. Does the patient have hypochlorhydria, hyperchlorhydria, achlorhydria, pyloric insufficiency or heavy mucus? The Heidelberg pH Diagnostic System can accurately diagnose these conditions. It is also useful in the diagnosis of gastric ulcers, acute or sub-acute gastritis, stomach emptying syndrome, dumping syndrome and delayed stomach emptying.

#### How does the Heidelberg diagnostic system work?

The Heidelberg pH Diagnostic System is a diagnostic tool that measures the pH levels in the digestive tract. This is accomplished by the use of a high-frequency radio transmitter capsule that the patient swallows. The pH capsule measures 7.1 mm in diameter by 15.4 mm in length and is encapsulated within polyacrylate (plastic), which makes for ease of swallowing. A specially designed, physiologic battery provides the power required to operate the transmitter. The Heidelberg pH capsule is NOT RADIOACTIVE.

The pH capsule is activated, calibrated and then swallowed. The patient wears a transceiver around his/her neck on a suspension strap. The frequencies transmitted by the capsule are picked up by the transceiver that converts the information to digital data and sends it to a computer where it displayed on a graph on a monitor. On completion of the test a print-out of the test information is reviewed by a doctor for diagnosing.

#### Administration

The tethered pH capsule is swallowed with one ounce of water. It reaches the stomach usually within 2 to 3 seconds. Once in the stomach, the exposed tether is attached by medical tape to the patient's cheek to prevent migration out of the stomach. The capsule can be removed by using the small-attached string.

With the capsule in place, the fasting stomach pH is measured and then a 5 cubic centimeters dose of a saturated solution of sodium bicarbonate is administered orally to the patient. The purpose of this challenge is to determine parietal cell activity and re-acidification time.

The test takes between 45 minutes and 2 hours to complete.

The Heidelberg pH capsule cannot be sterilized and is used for one application and one patient only.

## Preparation

A medical history is obtained and the results of a recent complete physical examination are reviewed. The patient must not be taking any medication that will affect the test results. Protein pump inhibitors, acid reducing medications, antihistamines, antibiotics are a few of the medications that will alter the test results. Some medications remain in the body long after they are stopped; therefore, the length of time and the quantity of the medication taken will determine how long it will be necessary to stop the medications before taking the test.

The patient is fasting 12 hours prior to taking the test. A consent must be obtained at the Centre.

The test must not be conducted if any reservations are held by the patient about taking the test.

## History

Professor H.G. Noeller conducted a research study with 1000 patients at the University of Heidelberg's Department of Gastroenterology in Heidelberg, Germany. He orally administered a 5 cubic centimeters dose of a saturated solution of sodium bicarbonate to each of these fasting patients. The purpose of this published study was to determine parietal activity and re-acidification time.

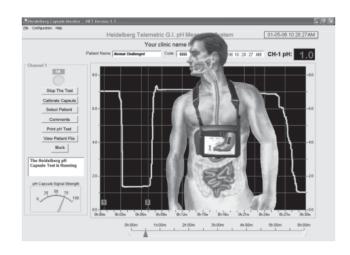


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# PROPER pH BALANCE IN THE DIGESTIVE TRACT IS PARAMOUNT IN MAINTAINING A HEALTHY IMMUNE SYSTEM, OVERALL HEALTH AND LONGEVITY

Heidelberg pH diagnostic test will quickly and accurately verify the presence of low stomach acid (hypochlorhydria), high stomach acid (hyperchlorhydria), no acid in the stomach (achlorhydria), dumping syndrome, acute or sub-acute gastritis, heavy mucus in the stomach and pyloric insufficiency. Optimal pH in the digestive process plays an important role in how we handle and process foods for the nourishment of our bodies. Virtually everything that we eat is properly converted and absorbed in the small intestine.



#### DISORDERS RELATED TO UNBALANCED PH

Allergies, GERD, AIDS, cancer, diabetes, osteoporosis, asthma, skin diseases, gastritis and much more.

#### **NON-INVASIVE**

The Heidelberg pH diagnostic test is noninvasive diagnostic test. It eliminates the use of the Nasogastric Tube and x-rays.

# **EXACT pH OF DIGESTIVE TRACT**

While in the stomach, the pH capsule will report the exact pH information and it will show the immediate changes to alkaline or acid "challenges".

#### **BACKED BY 150 CLINICAL STUDIES**

The Heidelberg pH Diagnostic System has been used for thirty five years. The Heidelberg bibliography has over 150 published clinical studies. Over 75 of these clinical studies relate to the unbalanced pH in the digestive tract and disorders.

# THE HEIDELBERG PH DIAGNOSTIC SYSTEM measures the PH of the

- stomach
- duodenum small intestine
- large intestine

#### AID TO DIAGNOSING

- \* Achlorhydria
- \* Acute/sub-acute gastritis
- \* Chronic gastric ulcer
- \* Dumping syndrome
- \* Fresh gastric ulcer
- \* Gastro-esophageal reflux
- \* Heavy stomach mucus
- \* Hidden hypochlorhydria
- \* Hypochlorhydria
- \* Hyperchlorhydria with delayed stomach emptying
- \* Hyperchlorhydria with marked delayed, emptying and highly acid small intestine
- \* Peristaltic activity
- \* Pyloric insufficiency suspected