Micro Direct, Inc.
803 Webster Street
Lewiston, ME 04240
(800) 588-3381
(207) 786-7280 FAX
www.mdspiro.com

# $H_2$ Check Fact Sheet

The hand-held $H_2$ Check provides a digital display of expired Hydrogen ($H_2$) in parts per million (ppm).

The $H_2$ check meter is used in the diagnosis of lactose mal-absorption (intolerance). Undigested lactose passes into the large intestine where action by bacteria causes the release of hydrogen which is absorbed through the intestine wall and dissolves into the blood stream.

The dissolved gas is released into the lungs through the capillary blood vessels surrounding the alveoli and is expired. An increased concentration of expired hydrogen following lactose ingestion therefore reveals lactose mal-absorption and can be easily and accurately measured by the $H_2$ Check meter.

This forms the basis of lactose tolerance test whereby a subject ingests a measured quantity of lactose after an overnight fast and has the concentration of hydrogen measured prior to ingestion and at 30 minute intervals thereafter for three hours in total. A rise of 10 ppm or more in expired hydrogen indicates lactose mal-absorption. If other symptoms such as abdominal pains are reported then lactose intolerance may be diagnosed.

Breath $H_2$ testing is reimbursable under CPT code 91065 Breath Hydrogen Test. The national average reimbursement is $84.75. The ICD9-CM codes used are 271.3 Lactose Intolerance and 271.8 Non-specific Disorder.

The $H_2$ Check is based on an electrochemical fuel cell which works through the reaction of hydrogen with an electrolyte at one electrode and oxygen (from ambient air) at the other. This reaction generates an electrical current proportional to $H_2$ concentration. Output from the fuel cell is sensed by a microprocessor which detects peak concentrations of expired gas and displays the results in parts per million (ppm) on a graphic LCD.

The $H_2$ Check is ideally suited for the Gastroenterologist, Internist, Pediatrician and Family Practitioner.

The $H_2$ Check, product #BH02, is supplied complete with all necessary accessories including a carrying case at a suggested professional price of $2,195.