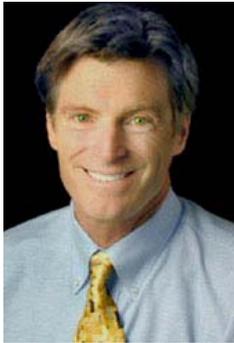




# Dr. Semmelweis

## *The “Savior of Mothers”*



*By Jay Hardy, CLS, SM (ASCP)*

Jay Hardy is the founder and president of Hardy Diagnostics.

After studying microbiology at California State Universities at Fullerton and Long Beach, he completed his Medical Technology internship at Santa Barbara Cottage Hospital.

The company began in 1980, shortly after Hardy served as a Medical Technologist and microbiologist at Goleta Valley Hospital in California.

**T**he need for [hand washing](#), as obvious as it may be today, was not recognized as a means of disease prevention before the middle 1800's.

Ignaz Philipp Semmelweis, a Hungarian physician, called the "savior of mothers", made an important discovery in 1847. He proved statistically that the incidence of puerperal fever, also known as childbed fever could be drastically cut by use of hand washing standards for doctors and nurses in obstetrical clinics.

Puerperal fever, which can lead to a more serious septicemia, is now known to be caused by either Group A or Group B Streptococcus.

**At that time in Europe, most women delivered**

**at home; however those that were taken to the hospitals due to poverty, illegitimacy, or birth complications, suffered a shocking mortality rate of 25 to 30 percent.**

Semmelweis was not the first to make the connection of iatrogenic (doctor induced) disease associated with child birth. In 1795, Alexander Gordon of Aberdeen, Scotland suggested that the fevers were infectious processes, and that physicians were the carrier, and

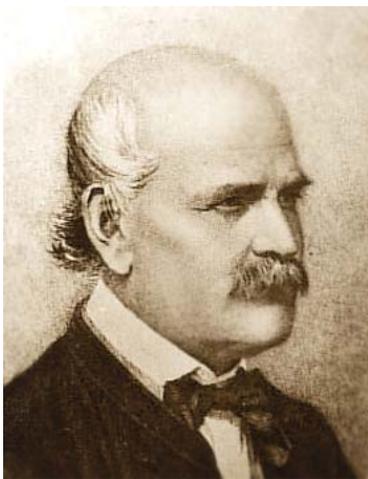


*It was not uncommon to have a mortality rate of up to 30% in the obstetrical wards of Europe in the mid 19<sup>th</sup> century.*

that "I myself was the means of carrying the infection to a great number of women."

Then in 1842, Thomas Watson, Professor of Medicine in London, advised: "Wherever puerperal fever is rife, or when a practitioner has attended any one instance of it, he should use most diligent ablution." Watson recommended hand washing with chlorine solution and changes of clothing for obstetric attendants "to prevent the practitioner from becoming a vehicle of contagion and death between one patient and another."

Oliver Wendell Holmes, Sr., a famous American physician and poet, stated in 1843, that he would rather have his offspring be born in a stable than to receive the best help and be exposed to the "vapors of this pitiless disease" at the hands of doctors and nurses.



**Ignaz Semmelweis, 1818 - 1865**

This accusation was often met with hostility from his fellow medical practitioners. One prominent obstetrician responded to Holmes and his

theory by writing, **"Doctors are gentlemen, and gentlemen's hands are clean."**

The Hungarian born, Dr. Semmelweis, while working at the Vienna General Hospital in Austria, discovered in 1847 that hand washing with chlorinated lime solutions reduced the incidence of fatal puerperal fever

time, no hand washing was done before or after the physicians performed vaginal examinations on the expectant mothers.

He postulated that "cadaverous particles" transmitted from the doctors hands after performing autopsies was chiefly responsible for the loss of life in the OB ward.



from 12 percent to about 2 percent.

He came to this conclusion after observing that the incidence of puerperal fever was over six times higher in women that had been attended to by physicians compared to those that had been attended to by midwives or nurses at the hospital. Only physicians performed autopsies; and this was often done in the morning. At that

**Semmelweis' hypothesis that all that mattered was cleanliness, was extreme at the time, and was largely ignored, rejected, or openly ridiculed.**

*"When I look back upon the past, I can only dispel the sadness which falls upon me, by gazing into that happy future when the infection will be banished."*

- Semmelweis

He was dismissed from the hospital and subsequently had difficulty finding employment as a medical doctor.

**Semmelweis was outraged by the indifference of the medical profession and began writing open and increasingly angry letters to prominent European obstetricians; at times denouncing them as irresponsible murderers.**

*"The Semmelweis Reflex" Definition: Mob behavior which occurs when a discovery of scientific fact is punished rather than rewarded.*

His contemporaries, including his wife, believed he was losing his mind, and in 1865, he was committed to an insane asylum. Sadly, Semmelweis died there only 14 days later, possibly after being severely beaten by the hospital personnel.

Semmelweis' hygienic practices only earned widespread acceptance years after his death,

when Louis Pasteur developed the germ theory of disease which offered a theoretical explanation for Semmelweis' findings. In 1879, Pasteur showed that streptococcal bacteria could be found in the blood of women who had puerperal fever.

Today, Semmelweis is considered a pioneer of antiseptic procedures, due to his discovery of the value of [hand washing](#).

**His story is just one more example of how**

**scientific discovery is often rejected by the established and narrow-minded thinking of the day.**

Let us remember his story whenever we are confronted with evidence that is contrary to traditional and conventional "wisdom."

**Jay Hardy  
HARDY DIAGNOSTICS**

